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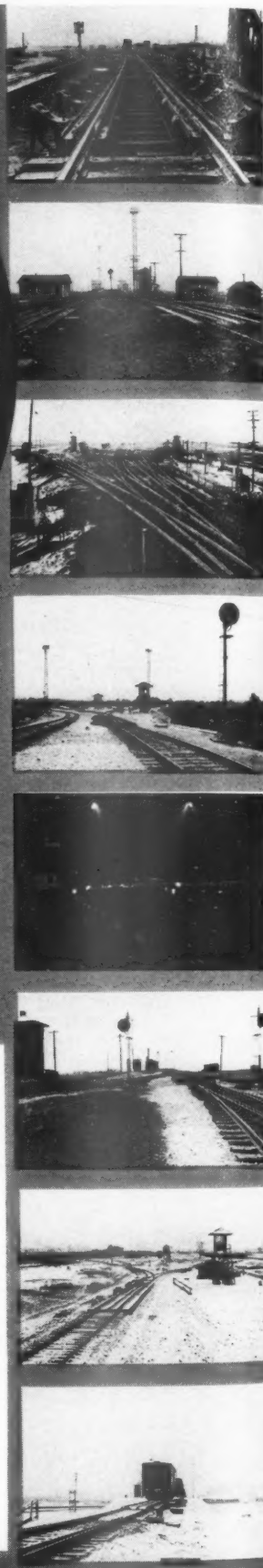
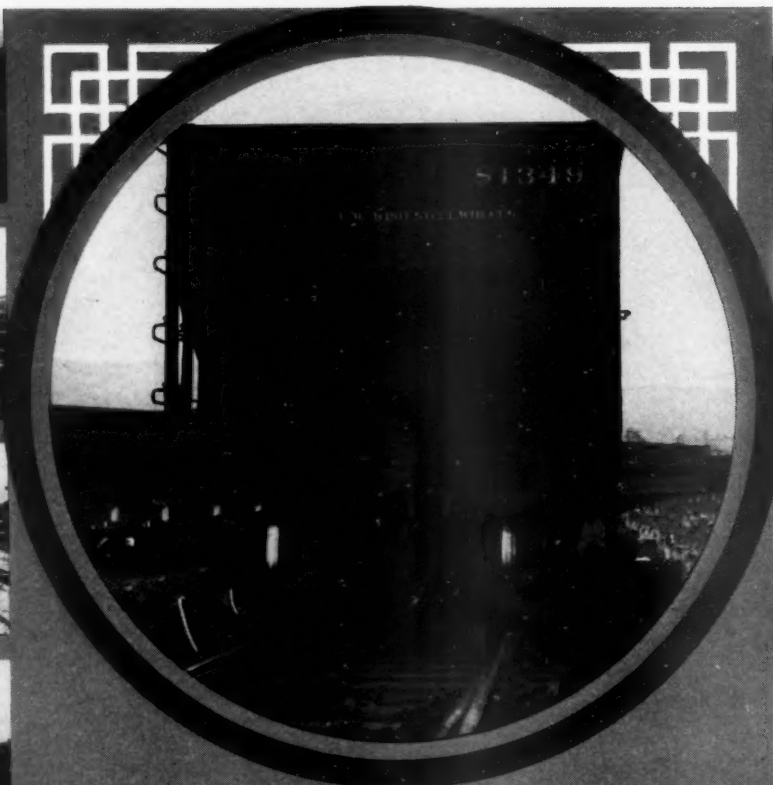
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NOT AN ESTIMATE—

—actual average annual return on the capital investment in 16 Retarder Installations was 42.86 Per Cent!

And the average cost per car handled through the sixteen yards before retarders were installed was 80 cents, and after the installations—52 cents, an average saving per car handled of 28 cents! » » » » » » » »

These savings were actually made during periods of light traffic and will be greater with increases in freight traffic.

These facts were disclosed by a survey of all car retarder installations conducted by the A.A.R. Signal Section and are reported in the 1934 Proceedings.

Our engineers will be glad to cooperate with you in making a study of the application of "Union" Car Retarders to your classification problems. Consult our nearest office.



1881

Union Switch & Signal Co.

SWISSVALE, PA.

1938



NEW YORK

MONTREAL

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Rate Regulation and the Present Railway Situation

It may seem far-fetched to attribute the present railroad crisis to a policy the application of which began thirty years ago, but facts that support this view can easily be presented. The railroads earned net operating income of only 93 million dollars in October and November, 1937—the smallest earned in these two consecutive months, excepting in 1934, since long before the great war. But why?

I.C.C. Destroyed Balance Between Rates and Prices

Effective regulation began in 1906, when the Interstate Commerce Commission was first empowered to fix rates. A sound economic balance between the prices and rates of different large industries is necessary to cause prosperity by providing each industry and its employees with the buying power necessary to make them a good market for the products and services of other industries and their employees. The country and the railroads in 1906 were in the midst of the period of greatest prosperity that they have ever enjoyed.

Between 1906 and 1916 wholesale prices of all commodities increased an average of 38 per cent. During this same decade, under effective regulation of their rates, the railways' average revenue per ton-mile declined four per cent. Unless it can be assumed that the railroads should have increased efficiency and economy of operation more than other industries, this change in the relations between commodity prices and their freight rates was certain adversely to affect their earning, employing and buying power.

Restoration of 1906 Ratio Would Prevent Disaster

The disparity between prices and rates then created has never been remedied. In 1926 prices were 62 per cent higher than in 1906, and average revenue per ton-mile only 44 per cent higher. In 1937 prices were 41 per cent higher than in 1906, and average revenue per ton-mile only 25 per cent higher. It would, therefore, require an increase of 13 per cent in average revenue per ton-mile to make it as high, compared with prices, as in 1906. This happens to be just about the

increase in revenue per ton-mile that would be caused by the proposed so-called "15 per cent" advance in rates that spokesmen of the railways claim they direly need.

The 93 million dollars of net operating income earned in October and November was at an annual rate of about \$430,000,000, or 1.68 per cent on investment. If in those months revenue per ton-mile had been 13 per cent higher, and all other factors had been unchanged, the amount of net operating income earned would have been about \$160,000,000—at an annual rate of about \$740,000,000, or 2.93 per cent on investment. Annual return at the rate at which it actually was earned in these months would be insufficient to cover fixed charges and prevent general railroad bankruptcy. Annual return at the rate at which it would have been earned if revenue per ton-mile had been 13 per cent higher, would be much smaller than in pre-depression years, but sufficient to cover fixed charges and prevent general bankruptcy. Therefore, rectification of the disparity created between prices and rates that began to be created thirty years ago seems plainly needed.

But it has often been intimated, or even charged, that the recurring crises in the affairs of the railways have been due to inefficient management. Let us consider some facts. Between 1916 and 1936 their average investment per employee increased from \$10,250 to \$23,439, or 129 per cent. In consequence, ton-miles per employee-hour—in other words, output of freight service per employee-hour—increased 72 per cent. This certainly does not indicate inefficiency. Few industries can show an equally good record. But it was not good enough on the basis of rates fixed, because meantime average wages per hour increased 144 per cent, or relatively twice as much as output per employee-hour. Average revenue per ton-mile increased from 7.07 mills to 9.74 mills, or only 38 per cent. Is it surprising, in view of these facts, that net return earned per one dollar of investment declined from 5.9 cents in 1916 to 2.59 cents in 1936, or 56 per cent?

Prices, including those the railways had to pay, increased in 1937, while revenue per ton-mile declined. Also in the latter half of the year freight traffic declined, while average wage per hour was further increased to 161 per cent higher than in 1916. And

yet, restoration of the same relationship between prices and rates that existed when effective regulation of rates began would enable the railways to pass through the present crisis; and an increase of their traffic to the pre-depression level in addition, without further advances in their unit costs, would solve their problem.

Railroad Problem Seems Difficult, But Isn't

The railroad problem has been made to seem so difficult principally by failure for thirty years to let them promptly readjust their prices in accordance with changes in their costs, as other industries have been allowed to do.

It is obviously necessary to the restoration of the earning power of the railways, not only that a sound economic balance between commodity prices and freight rates shall be re-established, but also that freight traffic shall be largely increased by a large increase of production and construction in the industries from which they derive their traffic. Barron's Weekly for January 3 has as its leading article a piece entitled "The Big Question for 1938" and this question, it says, "is whether the American people will increase their per capita production, or dissipate their energies in fighting over a subnormal output."

Probably most readers of *Railway Age* will agree with this statement. If they do, then they owe it to themselves and their country to carry on missionary work for this view—because there are a great many of their fellow-countrymen who fail utterly to understand that more goods must be produced before more can be distributed.

Even President Roosevelt in his address at the opening of Congress showed that, somehow, he has convinced himself that our national income can be increased by establishing maximum hours and minimum wages. Such maxima and minima may be justifiable on humanitarian grounds—but they cannot possibly have any positive and automatic effect toward increasing the national income. They might, indeed, decrease that income by driving some plants out of business, or by raising prices and thus forcing a curtailment in consumption.

If Higher Wages Balk Housing, Maybe They Do Damage Elsewhere Too

The President's approach to the housing question was much more realistic. Here he recognized that more houses will be built if costs—including costs of labor and financing—can be reduced. Well—if this method will work with building why wouldn't it work as well in other industries? If building construction is stymied by high labor costs, how is industrial production going to be increased by boosting its labor costs?

The article in Barron's contains a chart of industrial production *per capita*, showing that in 1937, there were

produced for the average American only 90 units of goods, compared with a 1923-25 average of 100 units, and a 1929 average of 110 units. These are the figures—and not those of money income—which need to be followed if we really are to have "a more abundant life" in this country. We don't eat money, we can't drive around in money, we can't crawl under money for shelter from the elements. More food, more automobiles, more houses—these are the things that measure the economic well-being of the American people.

Capital Not "Striking"— Its Inactivity Due to Starvation

And what is the limiting factor which is standing in the way of increased production of the commodities and services which measure our *real* wealth? The limiting factor is the failure of investment capital to go into industry in normal volume—a failure caused by inadequate prospect for profits from such investment. The withdrawal of investment capital has been called a "strike," but that term is inaccurate, because a strike is collusive action, a "ganging up." It is not a "strike" of capital that keeps it out of industry—but starvation.

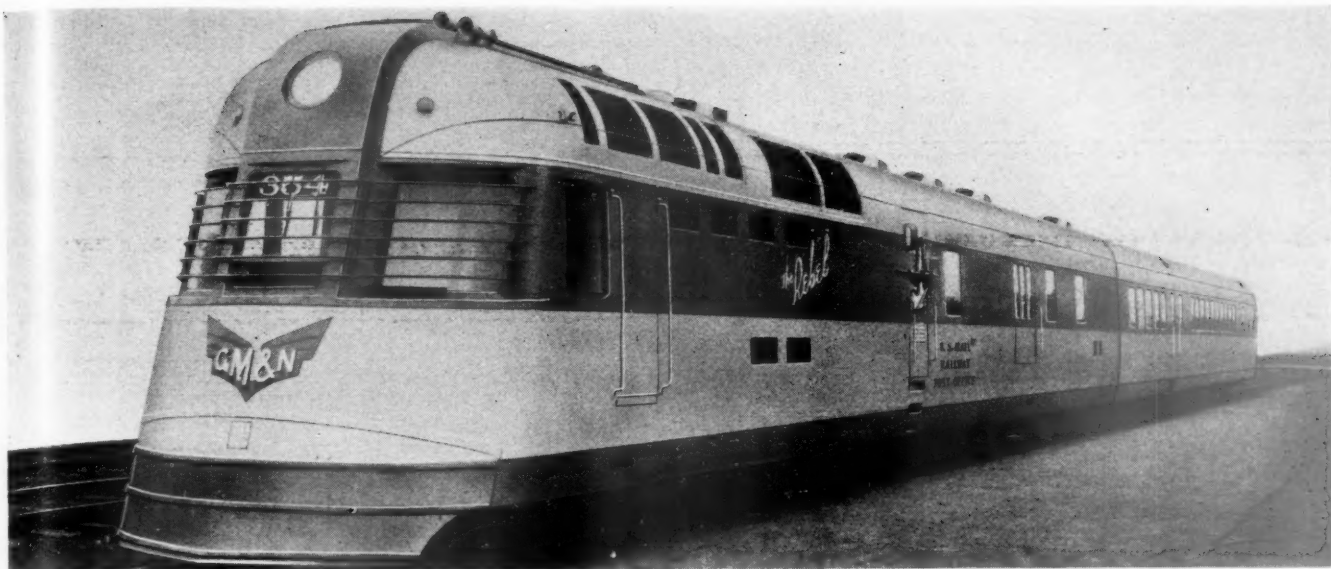
There have been times when national production has been slowed down by an inadequate supply of skilled labor, or of raw materials—and under such circumstances the corrective that has worked has been higher wages for labor and higher prices for raw materials. Investment capital, on the other hand, asks no increased "wage"—and might be content with considerably less than pre-depression pay. But it must have *some* pay and it must have reasonable security.

We have before us all the makings of an era of unparalleled well-being in this country—if only those who have the power to put the ingredients together will proceed to do so without further delay. And, in his approach to the problem of stimulating building and his statement on the necessity of higher earnings for the railways, the President shows—at least in these two important parts of industry—that he realizes the nature of the task and how to go about it.

Will anyone in his right mind contend that a worker can live decently, provide food and shelter for his family, education for his children, meet the devastating cost of illness, and lay aside a few dollars for old age on less than \$2,000 a year?

From an editorial in "Labor"

No—at least we don't contend it. We should like to see the average worker get much more than that. But a national income of 68 billions, even if divided evenly among the approximately 42 million persons gainfully employed, giving none of it to anybody else, equals only about \$1,600 apiece. If we try to pay everybody \$2,000 before we increase our production to that level, we'll be giving them more money, but the extra money can't buy goods that don't exist.



Third "Rebel" Enters the Service of the G. M. & N.

Power car and two sleeper-coaches built for use on Mobile line—Present equipment follows lines of original Rebels

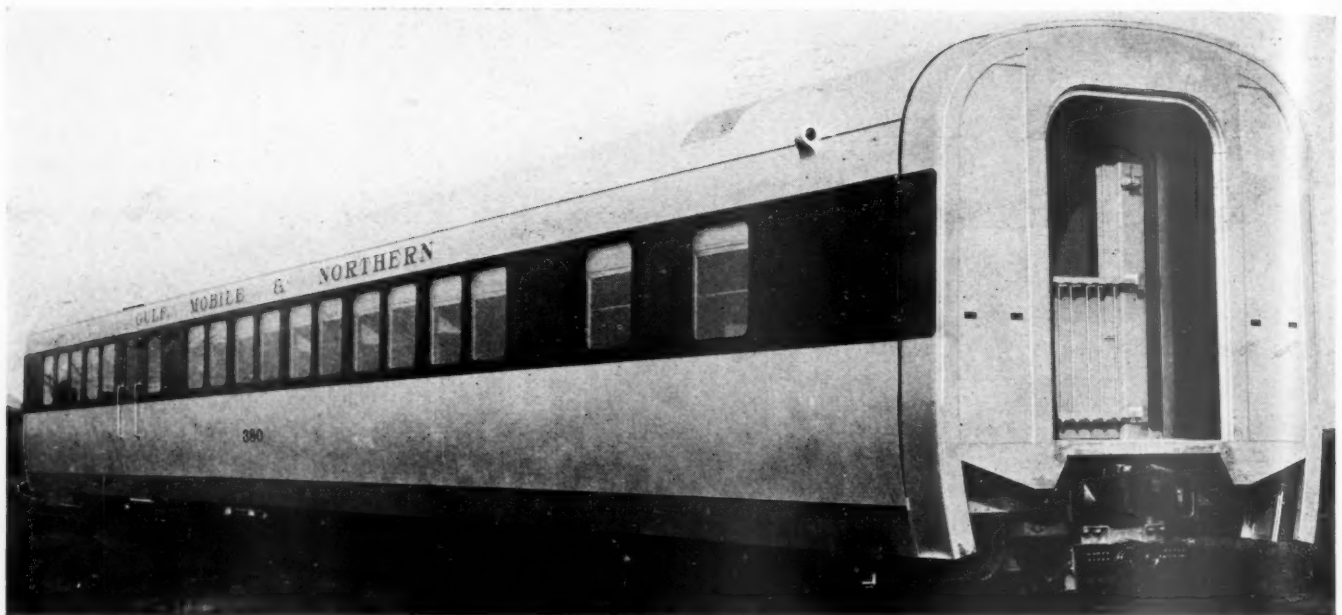
LATE in December there was delivered to the Gulf, Mobile & Northern a third streamline train which will serve as a companion to the two original "Rebels" placed in service by that road in 1935. This third Rebel was built at the Berwick, Pa., plant of the American Car and Foundry Company and consists of a power car and two sleeper-coaches, none of them articulated. The original Rebels have been in service for over two years between Jackson, Tenn., and New Orleans, La., a distance of 488 miles. These trains each consist of a power car having mail and baggage compartments; two coaches, seating 71 and 62 persons, respectively, the latter having buffet service compartment, and one sleeper-observation car. The third Rebel, in operation, will consist of the power car and one sleeper-coach running between Mobile, Ala., and the junction of the New Orleans-Jackson, Tenn., main line at Union, Miss., where the single sleeper-coach will be combined with the main line Rebel train. This run is 181 miles.

Structurally the two cars for this train are counterparts of those in the original Rebels, the difference being in interior arrangement. The floor plan of the new cars is shown in the drawing. The ends of these cars are designed with the full-width diaphragm to conform to the contour of the original cars with which they are to be used. At the rear end of these cars the openings adjacent to the passageway are fitted with removable closures to prevent "blind-baggage" riding when the car is operated alone with the power car.

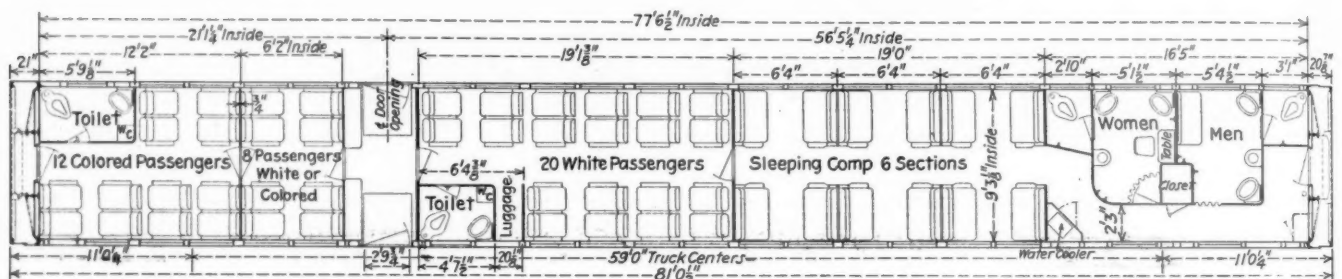
The center sills of these cars are 8-in., 11.5-lb. channels rolled of Cor-Ten steel which are spaced 18 in. apart, back to back, and joined by a 22-in. by $\frac{3}{16}$ -in.



Sleeping Compartment Showing Air-Conditioning Outlet, Ceiling and Berth Lights



The Diaphragm Openings at the Rear Are Closed In



Floor Plan of Sleeper Coach

top cover plate. The side sills, bolsters and cross-bearers are built up of pressed shapes. The framework consists largely of pressed-steel members. These and the sheets enclosing the exterior of the car are of Cor-Ten steel. The details of design and construction were completely covered in an article describing the original trains which appeared in the *Railway Age* for June 15, 1935, page 910. The present article sets forth the principal differences in arrangement and facilities.

The Sleeper-Coach

The sleeper-coach weighs 108,900 lb. It is 77 ft. 6 1/2 in. long inside and has an inside width of 9 ft. 3 1/8 in. At the forward end of the car is a compartment 12 ft. 2 in. long containing seats for 12 colored passengers and separate toilet facilities. The front compartment is equipped with reclining back, aluminum-frame seats upholstered in red leather. A partition, in which is embodied an artistic grille, separates this compartment from one 6 ft. 2 in. long with seats for eight passengers. This compartment is arranged for use either as a white or colored section. The center of the car is taken up by a coach compartment for 20 white passengers and includes independent toilet facilities for this section. This compartment is equipped with reclining back, aluminum-frame seats upholstered in Chase Cocotan fabric.

Between this larger coach compartment and the small white-or-colored compartment immediately forward is the single entrance vestibule for the car. The door open-



The Four Sections and Vestibule Are Shown in Succession in this View from the Front End

ings are 2 ft. 9 $\frac{3}{4}$ in., one on each side of the car, and the vestibule is closed with side doors. When closed the bottoms of the side doors extend down to the bottom of the skirting. A trap door is hinged directly to the inside of the side door and opens from the center.

The sleeping compartment, 18 ft. 11 $\frac{1}{8}$ in. long, is adjacent to the main coach section. It is fitted up for six sections having adjustable cushions and backs for day use and upper and lower berths for night travel.

At the rear of the sleeping compartment are the men's and women's dressing rooms. Both of these are fitted out in modern style with porcelain wash basins and hoppers. In addition to the full-length door mirrors, each washstand and the ladies' dressing table has illuminated mirrors.

The coach sections of the cars are decorated with a tan and brown combination with cream headlining. The sleeping section is decorated with salmon gray and brown with cream headlining. The seats are upholstered in Chase green fabric. Berth curtains are brown and the carpet is tan with a green figure. The floor covering in the coach sections is of rubber.

All hardware is satin-finish aluminum and the moldings are satin-finish stainless steel.

Lighting and Air Conditioning

The coach compartments have illuminated luggage racks. The lights are so located in these racks as to give each passenger a good reading light which can be controlled by the passenger to suit his desires. A blue night light is included in the same fixture. In addition to the luggage-rack lighting, the coach compartment has an overhead indirect lighting system located on both sides of the air-conditioning center ceiling duct. The sleeper compartment is equipped with modern ceiling

lights mounted on the air-conditioning center duct. Berth lights are mounted on the bulkhead at the center line of the seat and serve as reading lights or blue night lights as desired. The berth fixtures are so designed as to provide a small shelf over the top of the fixture. In the men's and women's dressing rooms, ceiling fixtures of the flush type are used and Lumiline lamps are built into the mirror frames. The car-lighting batteries on these cars are 54-cell, 75 amp. hr. capacity.

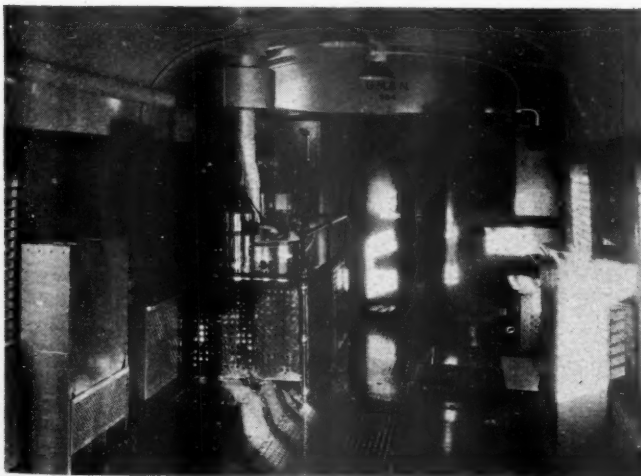
These cars are equipped with the A.C.F. air-conditioning system consisting of a York six-ton compressor and an A.C.F. fan-cooled condenser unit, both mounted beneath the car. Freon is the refrigerant. The motor consists of a 7 $\frac{1}{2}$ -hp., 115-volt d.c. motor and a 10-hp., three-phase, 220-volt a.c. motor. Normally the compressor is driven by the dc. unit but at terminals 220-volt power may be used to operate the 10-hp. motor, the d.c. motor then acting as a generator for recharging.

The distribution of the conditioned air is by means of overhead units and center ducts. In the sleeper section air is supplied through separate ducts to each berth with independent control for each berth.

The trucks under the sleeper-coaches are of the same design as the cars built in 1935 except that 5-in. by 9-in. Timken roller bearings have been used. These trucks have a wheel base of 7 ft., have 33-in. rolled-steel wheels and weigh 12,000 lb. each. Liberal insulation against noise transmission is supplied by the use of felt and rubber. The brake equipment on all trucks is the Simplex unit-cylinder clasp type.

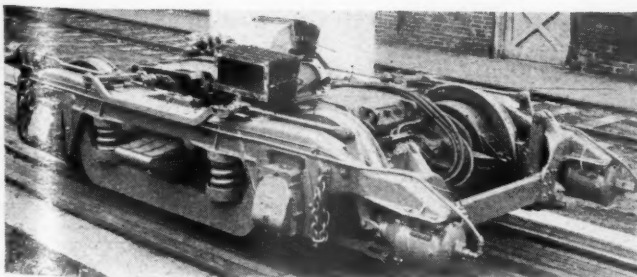
With the exception of the location and type of the heating boiler, the power car for the third Rebel is a duplicate of the first two. The weight of the car is 179,380 lb. with an overall length of 73 ft. 4 in. The engine room is at the forward end, 26 ft. long, with a

(Continued on page 156)



ABOVE—Heating Plant in Baggage Room

BELOW—The Power Truck



The 20-Passenger White Compartment Showing Lights in the Luggage Racks

Shippers Oppose 15 Per Cent Increase

Additional testimony by carriers and other interests show need for more revenue

OPPPOSITION to the 15 per cent increase in freight rates sought by the railroads under ex parte No. 123 was presented by the shippers of the country at hearings conducted by the Interstate Commerce Commission at Atlanta, Ga., and El Paso, Tex., on January 6 and at New Orleans, La., Los Angeles, Cal., Chicago and Salt Lake City, Utah, on January 10. So numerous were the witnesses that it was necessary for several members of the commission to hear testimony simultaneously and in some instances to hold night sessions. At these hearings, railroads and other interests favoring the increase were also heard. Additional hearings will be held at Portland, Ore., and Washington, D. C., on January 17. The latter, the final hearing, will continue until all testimony is closed. Oral argument before the commission will begin at the close of this hearing and briefs will be filed by the conclusion of oral argument.

While the shippers who appeared did not favor the increase, their testimony was tempered with the realization that the railroads were in need of more revenue and that something must be done to guard against the loss of rail transportation which they valued as essential to their economic welfare. This cognizance, however, did not lessen their opposition to a 15 per cent increase in rates on their individual shipments.

The testimony of shippers' witnesses followed a general pattern with a few variations. It was designed to show that the increase would have a serious or fatal effect on their business and would force them to patronize contract trucks or operate their own trucks, with a resulting loss in traffic to the railroads. Several of the exhibits introduced showed the relationship between rates and commodity prices in the past and the disruption of this relationship which would occur if rates should be increased.

At Atlanta

At Atlanta, where Chairman Walter M. W. Splawn and Commissioner M. M. Caskie conducted simultaneous sessions on January 6 to 8, these arguments were augmented by the contention that the south already is under the disadvantage of higher freight charges than official classification territory. W. S. Creighton, of Charlotte, N. C., representing the Southern Traffic League and other interests, proposed that if a 15 per cent freight rate increase is allowed in the north it should be held to a maximum of 10 or 11 per cent in the south to equalize the present differential. He argued that under no circumstances should a uniform percentage be applied alike in all territories, since such methods destroy established relationships, equalization of gateways and markets, and raise rates already relatively high and out of proportion with charges in lower rated territory. He also contended that if any increase is allowed it should be in cents per 100 lb., per ton or per car.

Stanley Winborne, state utilities commissioner of

Raleigh, N. C., testified that if the railroads are allowed an increase in freight rates it should be made in territories where rates are now lower than in the south. He urged that proper adjustment be made in the divisions between northern and southern carriers. "If this is done," he continued, "the weaker lines will receive greater revenue without increasing rates in higher-rated territories or further broadening discrimination against the south."

Mayor Hartsfield, of Atlanta, who has an interest in the Southern Talc Company at Chatsworth, testified that the rate increase would lead consumers to use substitutes for talc which could be obtained at closer points. L. O. Kimberly, assistant in the traffic department of the American Cotton Manufacturers' Association, said the proposed increase would jeopardize the textile industry, since it would increase the disadvantage of southern mills in shipping to northern markets. He claimed the rates on cotton piece goods from the south into the north are already about 10 per cent higher than between points in the north.

Proponents of the rate advances testified that present revenues of the railroads are inadequate to meet the generally advancing costs of labor and supplies, and that the rate increase is necessary to insure the continued operation of the railroads under private ownership. Among those testifying in support of the increase were F. W. Beazley, president of the Atlantic Company, Atlanta; R. H. White, Jr., president of the Southern Wood Preserving Company, Atlanta; G. G. Ware, president of the First National Bank, Leesburg, Fla.; and J. H. Alexander, president of the George Muse Clothing Company.

At El Paso and Salt Lake City

At a three-day hearing at El Paso before Commissioner Claude R. Porter, members of the Texas Railroad Commission sat with Commissioner Porter. At this hearing jobbers testified that they would divert a great deal of their freight traffic to the Mexican National Railways if the American railroads are successful in securing a general 15 per cent increase. They contended that they would be able to route goods from New York by boat to Tampico, then by the Mexican railroad to El Paso cheaper than by American railroads.

At the hearing conducted at Salt Lake City before Commissioner William E. Lee, farmers, live stock growers and business men of 8 western states,—Arizona, California, Montana, New Mexico, Texas, Nevada, Utah and Idaho—testified that an increase would create hardships for western cattle and sheep raising industries and reduce the volume of business to such an extent that the railroads would lose rather than gain by the increase. Charles E. Blaine, of Phoenix, Ariz., traffic manager and commerce counsel for seven live stock associations, contended that the railroads should seek rate reductions

rather than increases to obtain additional revenue. The proposed increase, he said, would cost the live stock industry \$8,915,000 annually on the basis of 1936 traffic, and about 70 per cent of this increase would be saddled on western industry.

Norman B. Gray, secretary of the Board of Equalization and the Public Service Commission of Wyoming, testified a percentage increase will tend to draw business and industry to the larger established producing and consuming centers in the east and middle west and will place the competitive cities intermediate between Wyoming and eastern points, in a more advantageous position.

At New Orleans

At New Orleans, La., where Chairman Walter M. W. Splawn and Commissioner Marion M. Caskie held hearings simultaneously on January 10 to 13, fruit growers and cotton men protested against the increase. R. B. Woolfolk, Orlando, Fla., vice-president of the American Fruit Growers' Association, contended that the rate rise would divert shipments to other means of transportation and any increase would be nothing short of disastrous, since present rates are an undue burden. Mark Anthony, speaking for the Dallas, Tex., cotton exchange, said he believed railroads would lose revenue by the 15 per cent increase through increased barge and truck line competition. Lloyd Estes, traffic manager of the American Cotton Co-operative Association, said that the increase would be a further levy on the grower and predicted greater shipment by truck if the rate is approved.

At Chicago

At Chicago, witnesses were so numerous that it was necessary for Commissioner Clyde B. Aitchison and Examiners Wm. J. Koebel and Irving Koch to hear testimony separately and to hold night sessions on January 10 to 13. E. E. Kohlwes, secretary of the Wichita, Kan., Board of Trade, testified that the present rates on grain are too high, the average being 34.7 per cent of the average price per bushel at point of shipment, and an increase of 15 per cent, which would make it 38.2 per cent, would encourage unregulated grain traffic by itinerant trucks.

He requested that in the event any increase is allowed in the current rates on grain and grain products, the commission allow such increases only under a consideration that existing relationships in all directions are to be maintained, without prejudice to further findings in other proceedings before the commission. In support of this request he said, "The grain rate structure is promulgated upon a movement from the producing territory in the West to the consuming territory in the East. So-called primary markets to which the grain first moves from the farm for marketing are located at Amarillo, Tex.; Ft. Worth and Dallas; Enid, Okla.; Hutchinson, Kan.; Salina and Wichita; Kansas City, Mo., and St. Joseph; Omaha, Neb.; Sioux City, Iowa; and Minneapolis, Minn., and Duluth. East of these markets are so-called terminal markets on the Mississippi river to which grain is shipped from the primary markets for blending, redistribution or processing. Among such markets are Chicago, Peoria, St. Louis, Memphis, New Orleans, Louisville, Ky., Cincinnati, Indianapolis, Toledo and Buffalo.

The important price-fixing markets are Chicago, Kansas City and Minneapolis. In the Southwest, Kansas City is the important price-basing market, and the

prices at the primary markets are influenced by the Kansas City price. The price the southwestern producers receive is also influenced by the Kansas City price and the freight rate to Kansas City or to the Gulf. The so-called gathering rates from the producing sections of the Southwest to the Missouri river and to the Gulf, except for export, were fixed by the commission in Docket 17,000, Part 7. The rates from the West to the East on grain and grain products are made to break on the Missouri river or Mississippi river or both. The rates from shipping points have been predicated upon a group basis to the markets and each group bears a fixed relationship with another and is responsible to a great degree for prices relationships as between the different groups.

"It is imperative and necessary, to avert a chaotic revolution of price and rate relationships, that the present relationship of one origin group versus another with respect to freight rates must not be disturbed. To avert establishing preferential or prejudicial rate relationships, the commission should require that any advance in freight rates that may be authorized must not be published in such a way that will in any way disturb existing rate relationships as between origin groups, markets or destinations, without prejudice to any further findings or orders that may be made in formal proceedings now pending or that may be brought before the commission in the future.

"The carriers in their original application dated November 5, 1937, themselves advocated the maintenance of recognized origin group differential relationships in connection with the rates on bituminous coal and coke, and anthracite coal. The grain rate adjustment is just as sensitive, if not more so, than the coal rate adjustment, and the commission has recognized the delicateness of the grain rate structure in innumerable cases in the past, illustrative of which is the commission's observation in its original decision in Docket 17,000, Part 7, wherein the commission said: 'In fact, generally speaking, all the rates on wheat may be likened to a huge blanket covering the entire country, and a pull on any part of this blanket to the extent of one or two cents, sometimes even a fraction of a cent, will be felt in every other part.'

J. C. Williamson, secretary of the Iowa Co-operative Live Stock Marketing Associations testified that the farmer is in no position to pay additional freight rates on hogs, cattle and sheep because of the unfavorable relationships between freight rates from Iowa to Chicago and prices of live stock in Iowa and because the increase in per cent of all farm land in Iowa owned by corporations indicates that decidedly unsatisfactory net cash income returns have been received by many Iowa farmers. He also said that increases in freight rates on live stock will reduce the volume handled and thus limit the revenue received from this source and supported this statement by showing how highway improvements have stimulated the truck transportation of live stock.

F. S. Hollands, assistant traffic manager of the Standard Oil Company of Indiana, testified his company was in sympathy with the petition if and to the extent the commission finds the increases sought are justified. "We feel," he said, "that the only equitable way to apply these increases is by means of straight percentage increases. This method spreads the increased charges over all traffic in proportion to the service performed and seems to us the only fair way to distribute it.

"In acquiescing to any proposed increases, we recognize the fact that some adjustments may or will be necessary after the increases are published in order to meet the competition of other forms of transportation.

(Continued on page 159)



The 222-Ft. Truss Span, Pivoted at its Far Corner, and Ready to Be Rolled Across the Main Line Tracks on the Temporary Spans in the Foreground

Unique Bridge Rolling Procedure Proves Highly Effective

Heavy truss span, 222 ft. long, is raised and rotated about a pivoted corner, across four high-speed tracks, to permit dismantling in the clear

THE rotating of one end of a 222-ft., 1,000-ton through truss span about one corner for a distance of approximately 109 ft. is no simple task at any time. When such a span is moved across four high-speed electrified main-line tracks, without interfering with traffic, this task becomes unique. This was the nature of the problem that arose recently on the New York zone of the Pennsylvania, when a bridge was taken out of service and it became necessary to move it entirely clear of the tracks, where it could be dismantled without delay or hazard to train operation.

The swinging of the heavy span into the clear required, first, that it be raised vertically a distance of about 11 ft., and then the construction of a temporary girder bridge of clear span over the tracks to carry the rolling bed for the moving outer end of the span. Most of the preparatory operations were of a routine character, but the rolling of the span itself, which was done with power-operated screw jacks, presented several unusual problems and required great precision and co-ordination of operations. This was carried out without mishap of any kind, and was completed in approximately 12 hours.

Part of Four-Span Bridge Abandoned

The truss span involved in the work was a double-track structure, with two broken-upper-chord, pin-connected Pratt trusses, and a reinforced concrete ballasted deck. It crossed the four main line tracks of the railroad at an angle of approximately 25 deg., with underclearance to top of main-line rails of about 19 ft., and was supported on concrete masonry piers. This main span, part of a four-span structure, was flanked on the west end by a 70-ft. approach span, and on the east end by

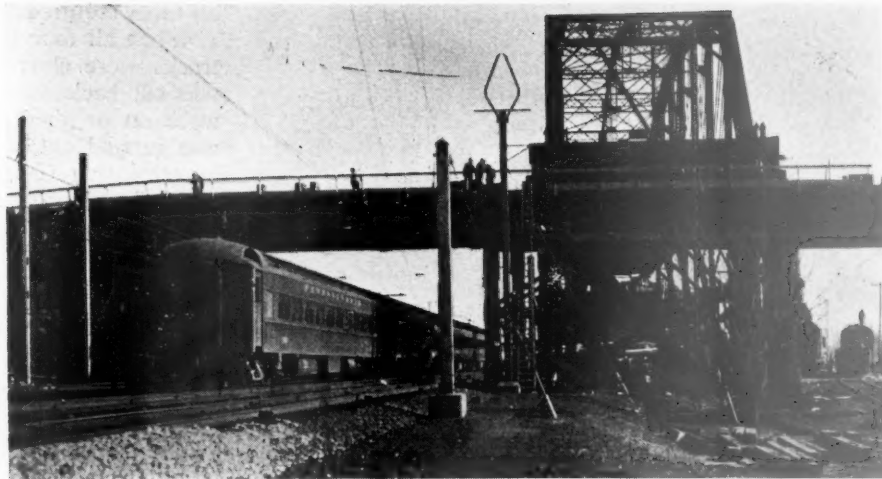
two spans, one 84 ft. long and the other 70 ft. long. Both 70-ft. approach spans consisted of four lines of deck plate girders supporting a reinforced concrete deck, while the 84-ft. span at the east end, which was located between the through truss span and the 70-ft. approach span at that end, consisted of two through girders, with the usual type of beam and stringer floor system, carrying a reinforced concrete deck. All of the approach spans required removal, but this work presented no particular problems as all the spans were clear of the main tracks.

The problem of removing the bridge was occasioned by the recent completion of new passenger station facilities at Newark, N. J., which include provision for the rapid transit service of the Hudson & Manhattan Railroad. Formerly, this service had its own terminal in Newark, and all interchange between it and main line Pennsylvania trains to and from the Pennsylvania station in New York City was made at Manhattan transfer, between Newark and New York. With the completion of the new station at Newark, all of the old rapid transit facilities west of Manhattan transfer, and Manhattan transfer itself, were abandoned, including the double-track truss span referred to in this article, which formerly carried the rapid transit tracks across the Pennsylvania's tracks, enroute to their Newark terminal.

Pivoted on Swing Bridge Center

In planning the removal of the long span over the tracks, three methods of procedure were given consideration. One of these was to dismantle it in place, which would have involved the erection of falsework bents between the main line tracks, which was not desirable, even if the track centers could have been widened

Rolling to This Final Position,
Clear of the Main Line Tracks,
Required Only 12 Hours



sufficiently to provide the necessary clearance. In the first place, this method would have presented a hazard to train operation and to the workmen over a considerable period of time, almost regardless of how carefully the work was carried out, and in the second place, it would have involved innumerable delays to the dismantling operations, which would have had to be stopped during the passage of each train.

A second method considered for moving the span consisted of rolling it parallel with itself on two temporary rolling bed bridge structures, to a point clear of the tracks for dismantling, while a third method, the one adopted, involved the pivoting of one corner of the span, and then swinging the opposite end across the tracks on a suitable temporary structure, to a position along the right-of-way, entirely clear of the tracks, for dismantling. The plan for rolling the span parallel with itself was considered entirely feasible, but it appeared to have no advantages over the plan for swinging the span, and with its requirement for two rolling bed bridge structures, would obviously have been much more costly than the swinging method.

The critical consideration in the swinging plan adopted was the care required to insure that in the rolling operations, the three concentrated load points, all moving on arcs of different radii, moved on true arcs so as not to dislodge the pivoted corner or cause a radial thrust or pull on the falsework supporting the rolling loads. This consideration was of particular importance because the pivot employed was a spare swing-bridge, disc-type center bearing, which offered practically no restraint against horizontal movement. With this type of pivot,

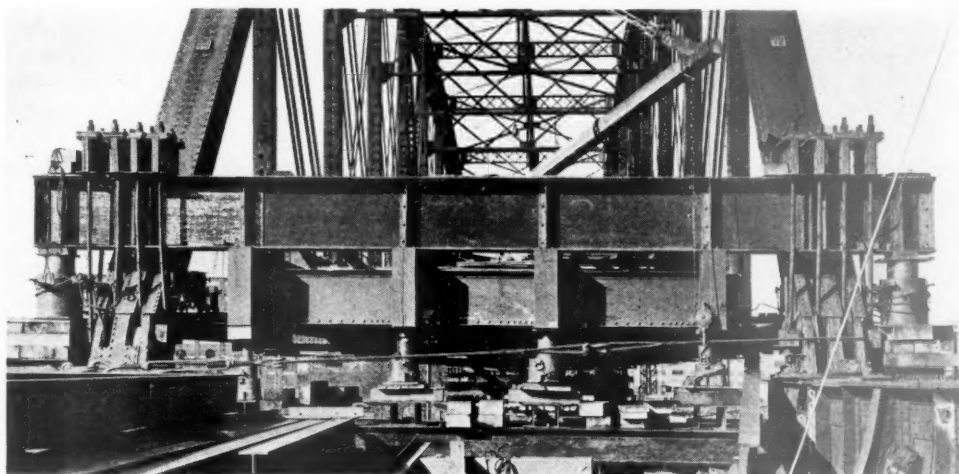
it was obvious that any appreciable radial movement of the span during its rotation would cause binding at the pivot and introduce stresses in the falsework for which no provision had been made. However, by proper adjustment of the rollers at the three moving corners, radial movement of the span, and, therefore, movement at the pivot point, was kept to less than $\frac{1}{8}$ in., which presented no difficulties whatever.

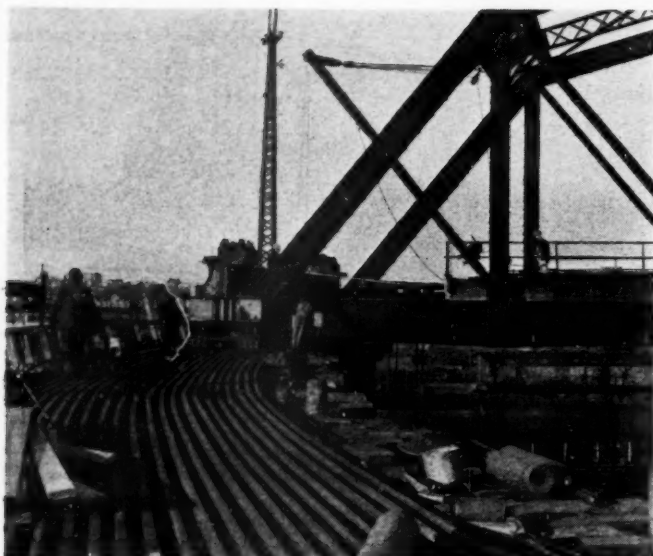
Rail-Type Rolling Bed Employed

The first major operations in the work involved the erection of the temporary rolling bed span across the main line tracks, with an adjacent similar span on the south side of the right-of-way, and the raising of the truss span sufficient to clear the top surface of the rolling bed spans. The rolling bed spans were constructed of the deck girders taken from the two 70-ft. approach spans of the crossing, each span being made up of four lines of these girders, suitably tied together and decked over solidly with 12-in. by 12-in. timbers. Both spans were supported on timber bents, with the exception of the north end of the clear span over the tracks, first to receive the load of the truss span as rolled, which was given support, in part, on blocking on top of the truss span pier.

The rolling bed provided on these spans consisted of a series of second-hand track rails, laid on about 6-in. centers and spiked at intervals directly to the solid timber deck. The final top elevation of the rolling bed was 28 ft. 6 in. above the top of the rail of the main line tracks, this being governed by the depth of the girders,

This View Shows Details of the
Span-Raising Arrangement, Typical
of Both Ends, Including the
Jacking Beams, U-Bolt Hitches
and Locations of the Jacks

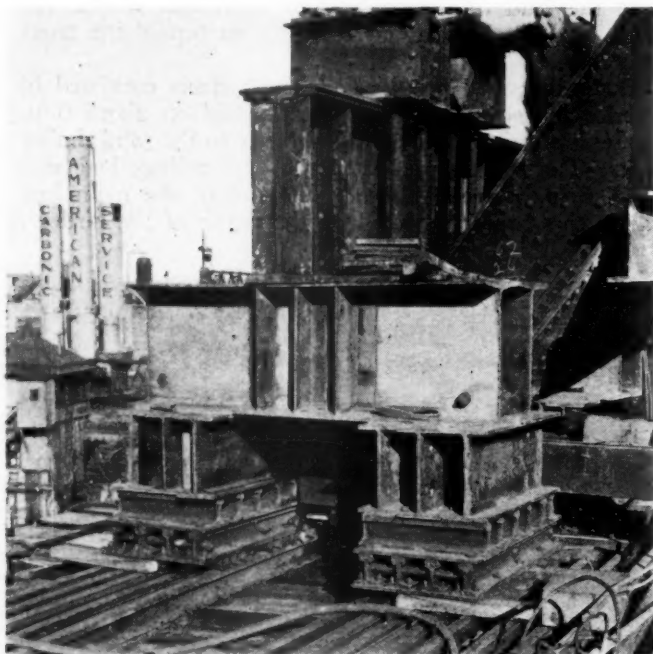




The Rolling Bed Was Made Up of Second-Hand Rails Spiked Securely to the Solid Timber Deck of the Temporary Span Built Over the Tracks

deck timbers and rolling bed rails used, and by the necessary clearance above the catenary construction of the electrified main line tracks.

The erection and later dismantling of the temporary rolling bed span over the main tracks were the only operations which required temporary use of any of the tracks, and in each of these cases, the work was done during the night, without interference with train movements, within a period of approximately six hours. Following the completion of the bent supports for the span across the tracks, the girders for this span were taken out on one of the inside main tracks on flat cars, and were then raised, one at a time, into position by a derrick car spotted on the adjacent inside track. While this work was being carried out, power was cut off from the catenary wires over all four tracks for the length



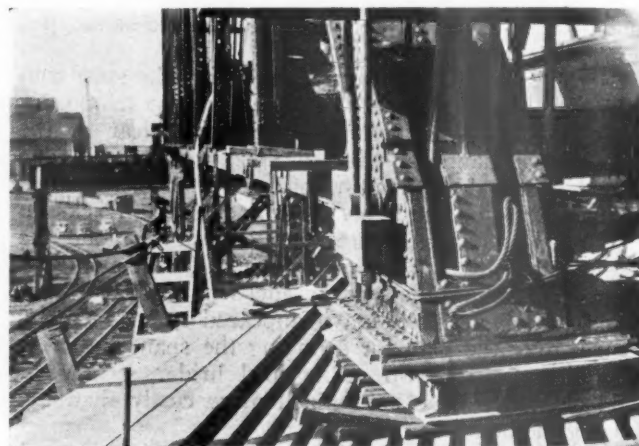
This View Shows the Forward Rolling Shoes at the Swinging End of the Span, and the Means by Which the Span Load Was Transmitted to Them

of time required to raise, turn and land each girder.

When all four girders had been thus placed, the main tracks were cleared for normal train operation, power was cut back into the trolley wires, and all subsequent work on or about the rolling bed span over the tracks was carried out without further interference with train movements. Construction of the second rolling bed span adjacent to the one over the tracks was carried out with the same hoisting equipment, operating from a temporary track constructed on the right-of-way at this point to facilitate carrying out the various operations in the work, including the final dismantling of the old truss span.

Heavy Jacking Beams Lift Span

The top elevation of the rolling bed spans was the determining factor in the height to which it was necessary to raise the old Pratt truss span before it could be rolled clear of the tracks. The only important work done on the truss span prior to raising it was to cut away short sections of the concrete deck near both ends to permit the jacking operations, and to remove the track ballast and one of the tracks. The other track was per-



The Rolling Shoe at the Corner of Short Rotation, After the Span Had Been Moved Clear of the Main Tracks

mitted to remain and was used as a material track. As a matter of fact, with no access to the westerly end of the truss span by means of either trucks or rail-mounted equipment without using or interfering with one of the main tracks, all of the blocking material employed at this end was hoisted by crane on to the span at its easterly end and was conveyed by push car across the span to the point of application.

The jacking equipment employed consisted essentially of a number of hydraulic jacks and a jacking beam at each end of the span, supporting the four corners of the span by means of groups of U-bolts extending around the pins of the corner connections. The jacking beam at each end was a 36-in., 260-lb. girder beam, strengthened with shear plates and stiffener angles, and was located transverse to the span with its center line directly over the two end pin connections. Each corner hitch between the beam and the span consisted of four 2 1/4-in. U-bolts, the outside bolts being attached to solid steel block cradles which supported the ends of the pin, and the two inside bolts extending around the pin itself between the spaced eye-bars of the lower chord. Placing these latter U-bolts required cutting slots in the cover plates of the end posts of the trusses and in the cover

plates of the shoes, but this involved little work and no difficulty.

The primary jacks employed in the raising of the span consisted of one 500-ton jack at each corner, with direct bearing on the underside of the jacking beam, and intended to take the major part of the load. Each of these jacks was located at the end of the beam, just outside of the end post, while secondary jacks were placed beneath each of the four stringers of the end panel of the floor system directly beneath each jacking beam, these being employed primarily to minimize the tendency for deflection in the jacking beams. All jacks were of the hydraulic type, and were hand-operated during the raising operations.

As the bridge was raised simultaneously at both ends, timber and structural steel cribbing was built up to take the load, the greatest care being taken in constructing the cribbing to prevent any possibility of its movement or settlement. The larger percentage of the cribbing consisted of second-hand structural beams, which were tied together at critical points by means of bolts and spacers, or by welds at points of intersection.

Rollers Used Under Three Corners

When raised to its final elevation above the level of the rolling bed, the swing bridge center was placed under the shoe of the pivot corner of the span, and special rolling shoes were placed beneath the other three corners. In the case of the two corners of the span at the end opposite the pivoted corner, with their long arcs of travel, four independent, yet tied together, rolling shoes were provided beneath each corner, while at the moving corner of the span nearest to the pivoted corner, with its relatively short arc of travel, only a single rolling shoe was provided, this latter shoe, however, being somewhat larger than the individual shoes of the multiple arrangement at the other moving corners.

Each of the rolling shoes consisted of a grillage of 100-lb. T-section rails, securely bolted together and provided with a 1/2-in. steel cover plate and a 1/2-in. steel rolling plate, the latter having direct bearing on the series of loose steel rollers employed for the rolling of the span. In the case of the long swinging end of the span, the load of the span was transmitted through the jacking beam to the groups of roller shoes by means of heavy built-up needle beams and blocking grillages of I-beams and old rails, welded together, while in the case of the short rotating corner nearest to the pivoted corner, the single roller shoe used was placed directly beneath the old bridge bearing shoe, the jacking beam in this case not being used to carry the load. All of the rollers used in moving the bridge were 2-in. steel bars, from 8 to 10 of these being maintained beneath each of the smaller rolling shoes during the rolling operation, while from 15 to 18 were maintained beneath the single larger shoe.

Span Rotated by 80-Ton Jacks

The actual rolling of the bridge was accomplished by means of two 80-ton screw jacks, placed horizontally against the outside pair of rolling shoes on the side from which movement was to be made, and given reaction bearing on angles welded to the tops of the rails forming the rolling bed. Since one 80-ton jack was sufficient to move the span, the two jacks were used alternately, one being in operation while the other was being readjusted and prepared for operation. Thus, after the movement of the span was started, it was practically

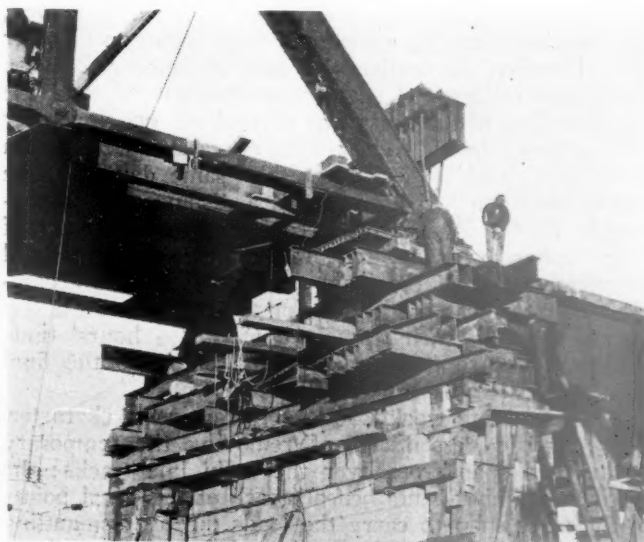


A Disc-Type Swing-Bridge Center Was Employed at the Pivoted Corner of the Span

continuous, being at the rate of approximately 14 in., the rise of the jacks, every four minutes of actual jacking time. To obtain this speed of jacking, the hand levers of the jacks were replaced by air-driven wrenches.

One other jack, of 35 tons capacity, was used in the rolling operation, this being located at the corner of small movement opposite the pivoted corner, and operated in line with the longitudinal axis of the span. The purpose of this jack was not to effect any rotating movement of the span, but rather to overcome the rolling friction at this corner, which might otherwise have caused a tendency for the truss on that side of the span to buckle. Throughout the rotation of the span, specially trained crews of men were located at each of the rolling shoes to place the rollers as the movement progressed, and foremen at both jacking points were in constant portable telephone communication with each other to insure co-ordination of the operations and span movements at these points.

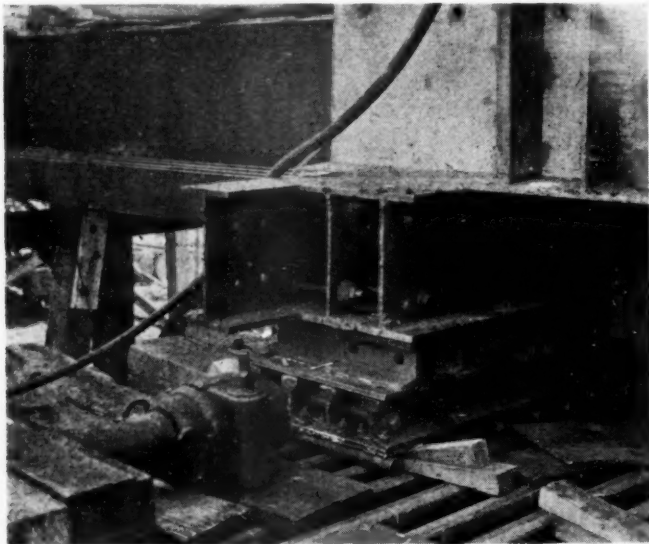
While the actual jacking of the span was relatively simple in itself, the rolling operation as a whole was the critical feature of the work. This is realized when it is



Most of the Cribbing Used to Support the Raised Span Consisted of Steel I-Beams, Bolted Together

understood that the different arcs of travel of the roller shoes at the various corners of the span had different radii, and that any mis-alinement in the placing of the rollers beneath the individual shoes would have had a tendency to cause lateral movement at the pivoted corner of the span, which, with its disc-type bridge centers, offered little restraint against such movement.

The desired actual positions of the rollers were indicated by chalk marks on the tops of the rolling bed rails, but throughout the movement of the span, the precise angle of the rollers was adjusted back and forth



One of the Two 80-Ton Screw Jacks, Which, Operated One at a Time by a Power Wrench, Rotated the Span Easily

as necessary to control any tendency to pull the span from its true position at the pivoted corner, the rollers under load being moved readily by striking their ends with a hammer. The work at the different rolling points was so well co-ordinated and accurate that the maximum radial movement of the span at the pivot was less than $\frac{1}{8}$ in., which presented no difficulties.

Rolled in 12 Hours

The work preliminary to the raising of the truss span before swinging it, was started on October 18, 1937, and the actual raising operations were begun on October 27. Between November 18 and November 26, the temporary rolling bed spans were constructed, and the actual rolling of the truss was carried out on November 30 and December 1. The rolling operations were begun at 10 a.m., and by 7:30 p.m., the same day, the free end of the span had been moved a distance of approximately 79 ft., to a position centered over a group of four timber bents located immediately south of and practically clear of the main tracks. With this accomplished, work was suspended for the night, and the following morning within approximately $2\frac{1}{2}$ hours' time, the span was rotated an additional 30 ft. to the final location desired for dismantling.

The remaining work was largely routine in character. This consisted essentially of removing the temporary rolling bed span from over the main line tracks; the placing of timber bents beneath each of the panel points of the truss span to carry the loads during dismantling operations; the actual dismantling of the span itself; and the final clean-up work of removing the old bridge piers and such falsework as remained. The dismantling of

the rolling bed span over the tracks was accomplished in the reverse order of its erection, using the same equipment while occupying the two center main line tracks for a period of approximately six hours at night.

All of the timber bents for use during the dismantling of the truss span were fabricated in advance of the span rolling operations, and had been laid down beneath the final location of the span, in convenient arrangement for speedy erection. Most of the dismantling operations were carried out with ordinary bridge tools, but oxy-acetylene cutting torches were employed wherever they would speed up the work, since the old span steel was being disposed of as scrap. The old concrete deck of the span was demolished in sections with pneumatic rock drills, the individual sections being lowered to the ground by a crane.

The work of rolling and dismantling the truss span was carried out under the general direction of W. D. Wiggins, chief engineer, Pennsylvania, and A. C. Watson, chief engineer, New York zone, and under the immediate direction of T. W. Pinard, engineer of bridges and buildings, New York zone, and L. P. Struble, engineer, Newark improvements. The actual work was done under contract by J. Rich Steers Company, Inc., New York.

Third "Rebel" Enters the Service of the G. M. & N.

(Continued from page 149)

15-ft. mail compartment immediately to the rear of the engine room. At the rear is the baggage room, 30 ft. $2\frac{1}{2}$ in. long.

The power plant consists of a 660-hp. Alco Diesel engine and Westinghouse generators and traction motors. The main generator is rated at 450 kw. at 740 r.p.m. The power truck is equipped with two 275-hp. traction motors, one driving each axle. The gear ratio is 22 to 54. The ventilating air for the traction motors is taken from the interior of the baggage compartment. In this car the engine air supply is taken from outside the car instead of from the engine room and the oil is cooled by being passed through a heat exchanger which is cooled from the water radiators instead of cooling by passing the oil through an oil radiator. Otherwise the arrangement of the power plant is the same as in the original two power cars.

The cars are heated by the Vapor system with steam supplied from a Clarkson coil boiler with a capacity of 800 lb. per hr. located on the right side of the car. Two 300-gal. water tanks in the baggage compartment provide feedwater for the boiler. The cars are equipped with Vapor constant-pressure regulator and heat is supplied from two sources—fin heating coils in the air-conditioning system and fin-pipe radiators at the base of the side walls. The heat is controlled automatically through magnet valves actuated electrically by thermostats.

O-B tight-lock couplers are used on these cars with Edgewater ring-spring draft gears. Each coupler carries a connector head with ports for steam and air connections. Below the pipe connections are the electrical contacts for the auxiliary power and lighting train lines, buzzer car signal and air-brake-operating circuits. Other equipment on the power car consists of Graham-White sanders, Pneuphonic horn, locomotive type bell with King type ringer, and G.R.S. intermittent type automatic train control. This train is equipped with the New York Air Brake Company's type HSC brake with Decelakron control.

Hearings on Train-Limit Bill

"Safety measure" role which carried it through Senate is continued before House Committee on Interstate and Foreign Commerce

WASHINGTON, D. C.

CASTING the train-limit bill in the same "safety measure" role, which carried it through the Senate at the last regular session of Congress, labor representatives defended the proposal almost entirely on that basis at this week's opening sessions of hearings before the House of Representatives Committee on Interstate and Foreign Commerce. The bill (S. 69), which would limit the length of freight trains to 70 cars, was reported by the Senate Interstate Commerce Committee without hearings and passed by the upper body on July 26, 1937, without a record vote.

The "make-work" aspects of the measure were mentioned only briefly by the first witness before the House committee—John T. Corbett, assistant grand chief engineer and national legislative representative of the Brotherhood of Locomotive Engineers. At the end of his lengthy statement Mr. Corbett discussed the employment possibilities in the fashion of an afterthought, saying that if opponents raise the point, the B. of L. E. "will be interested in knowing" why railroads should not be expected to give some such consideration to their employees; why railroaders are not entitled to some of the benefits which have come to other workers since the advent of the "Democratic Administration."

Traffic-Producer as Well as Safety Measure

Interspersed throughout his arguments for the measure on the basis of safety were Mr. Corbett's assurances that it would at the same time benefit the railroads by enabling them to regain traffic which he alleged they have lost through the practice of holding cars for the purpose of making trains up to the full tonnage rating of locomotives. Also, he used the argument that the great majority of trains today are less than 70 cars and thus the railroads could, if the bill became a law, avoid running any substantial number of additional trains by reassigning cars from over-limit trains to those of less than 70 cars. As Mr. Corbett phrased it at one point the long-train idea has become an "hallucination" with railroad management, which thinks that only that type of operation will produce dividends for stockholders. Yet the witness had a list of securities prices over a 40-year period, which he said showed that railroad stocks were "considered as of more value" before long trains were run.

There was also in Mr. Corbett's statement the threat of labor advocacy of government ownership if employees do not receive the treatment which they believe is their due. The B. of L. E., he said, has not seen fit to endorse the government-ownership idea; but he went on to cite various instances of government-operated services in other fields, which he said were successfully performed. All of which, he added, lends weight to arguments on behalf of the socialization of transport. On the other hand if the railroads show a disposition to co-operate, the B. of L. E. stands ready to assist the carriers "in providing better service than is provided under the mistaken idea that long trains is the way."

Members of the committee who started the question-

ing of Mr. Corbett indicated that, with the safety argument made the basic one, they will require more "facts and figures" than Mr. Corbett presented before making up their minds. The witness assured these members—Representatives Wolverton of New Jersey and Boren of Oklahoma—that subsequent labor witnesses "representing the rear end of the train" would supply the desired data.

Representative Lea of California, chairman of the committee, opened the hearing with the statement that it had been decided to hold hearings on S. 69, although a number of "similar measures" had been introduced into the House. Among the latter he listed those offered by Representatives Griswold of Indiana and O'Connell of Montana. Mr. Corbett opened his statement with the assertion that the B. of L. E. would prefer the Griswold or O'Connell bill as affording "greater safety" since they provide for a freight-train limit of 70 cars or one-half mile and a 14-car passenger-train limit. Despite this preference, the Brotherhood is willing to accept the "compromise provisions" of S. 69. It is convinced that the safety of railway employees, the public and the best interests of all concerned would be served by the enactment of train-limit legislation.

A substantial portion of Mr. Corbett's statement was devoted to what he characterized as a rebuttal to recent Association of American Railroads advertising with respect to the train-limit bill. This form of answer was found necessary because the Brotherhood "could not hope to finance any advertising campaign in competition with the A. A. R." Labor's proposals, he said, have been presented because of injuries and deaths to "thousands of employees," and labor "resents" the implication that it is retarding progress. Referring to that A. A. R. advertisement which was headed "Do You Want to Go Back?" the speaker asked if the A. A. R. would care to return to the cited period in railroad history and "erase some of those smells" created by the financiers of that time.

Mr. Corbett believes that the A. A. R. must realize that there is to be "no going back" when it considers the benefits railroads have received from former safety measures which they opposed. Here came the reference to government ownership which the witness predicted might come if the railroads think that "they can go backward in their service to the public and the treatment of their employees in order to go forward in the payment of dividends."

Cites Opposition to Past Safety Laws

The locomotive engineer was receiving less per ton-mile in 1937 than he was in 1897, Mr. Corbett went on as he led up to a listing of various past safety laws which railroads opposed "with the same fossilized expressions" they have used for years. He took "special exception" to the claim that accidents to employees have declined materially; with the upturn in business from the depression's low point, he contended, there came an increase in such accidents. Returning to safety laws

of the past, Mr. Corbett found a "peculiar twist" in the fact that the automatic-coupler law gave the railroads equipment without which they could not now operate long trains.

The B. of L. E. thinks that railroad managements' experience with passenger business should "serve as a revelation" as to traffic which can be attracted with frequent service—smaller, faster trains that "run" instead of "waiting for another car to complete the tonnage allotment of a locomotive." Here came one of the witnesses' expressions of hope for management-labor cooperation "to permit the industry to move forward with safety." The passage of S. 69, he added, should be the first step in such a co-operative program, which he did not further outline.

Mr. Corbett next discussed the difficulty of transmitting signals from the caboose to the locomotive of a long train, attributing "numerous wrecks" to this situation. He thought the statement that a train-limit would increase the grade-crossing accident hazard was "nonsensical" coming from an industry "endeavoring to secure a greater volume of business." A follow-through, he contended, would lead to the conclusion that the best way to reduce crossing accidents is to give the railroads as little business as possible. The witness then described a grade-crossing accident in which the train he was operating on a light-traffic line was involved, reciting facts which, he said, showed that heavy-traffic lines keep motorists alert; thus "it is possible that few trains are less protection than many."

The remainder of Mr. Corbett's statement, aside from the brief reference to employment possibilities in the bill, was devoted in the main to a discussion of accidents caused by slack action following applications of the brakes on long freight trains. In this connection he offered for the record a recent report of the I. C. C. Bureau of Locomotive Inspection on the November 19, 1937, accident on the Central of New Jersey at Bloomsbury, N. J. In that case an emergency application of the air-brakes on a 95-car train resulted in a sudden stop which "caused the serious injury of one employee who was riding in the caboose."

Wolverton Stresses Need for Factual Data

Representative Wolverton was the first to question Mr. Corbett, and as stated in the foregoing, he was interested particularly in data on accidents caused by long trains. Mr. Wolverton, as he put it, was "endeavoring to make plain" the importance of such factual data with the bill put forth as a safety measure. Representative Boren, who couldn't find "any facts or figures" at the present stage of the hearing, expressed the same view, although he wanted also data on the effect on employment. Representative Pearson of Tennessee asked about tests to determine the safe length of a train, and Mr. Corbett referred again to the difficulty of transmitting signals. He said that 60 cars is about the limit for proper interpretation of signals. Then Mr. Pearson asked why the bill proposed a 70-car limit if more than 60 cars made an unsafe train. And Mr. Corbett cited his previous expression of preference for the alternative one-half mile limit, which he would be glad to have the committee incorporate into the pending bill.

Representative Kenney of New Jersey suggested that the 70-car limit might prompt railroads to build trains up to that point in territories where such operations would be unsafe, and also referred to Mr. Corbett's statements which the questioner interpreted to mean that anything beyond 60 cars was unsafe. The witness

explained that in the latter connection he was referring only to the transmission of signals; he thinks a 70-car train is "reasonable safe" and would be inclined to give it a trial. If it doesn't work out, he added, labor may be back at the end of ten years with a presentation based on their decade of experience. In connection with Mr. Kenney's suggestion that there might be a tendency to build all trains up to 70 cars, the witness did not think it was necessary at this time to provide a safeguard to keep trains below 70 cars under certain conditions. The present bill, in Mr. Corbett's opinion, is the "best possible compromise."

Representative Mapes of Michigan asked about the possible effect of the bill on the practices of the railroads; and Mr. Corbett replied that he had "great confidence" in the ability of the carriers "to compile figures," but he does not believe the cost will be as great as they estimate.

After bringing out that Mr. Corbett represented 65,000 railroad employees, Representative Kennedy of New York asked if there is any difference of opinion among employees as to the advisability of the bill. The witness answered by saying that there isn't any difference of opinion, but all employees "won't admit it." Mr. Kennedy continued at the second session on January 12 to ask about the possible reflection of increased railway expenses in the costs of foodstuffs, and the effect of crowding extra trains into New York's already-congested terminals. Mr. Corbett could not see any basis for fears in either connection; he thinks a train-limit law would not add to railway expenses, and he pointed out that there would be no additional cars in the New York terminals even though they arrived in a greater number of trains. The witness again insisted that safety is "the principal idea" of the bill which was proposed because of the accident situation.

Public Feels "Absolutely Safe" on Railroads

Representative Pearson of Tennessee returned to his "Why 70?" question but the witness was unable to explain the figure other than to state his belief that Senator McCarran got it from a similar Nevada law. Mr. Corbett agreed with Representative Withrow of Wisconsin that the railroads enjoy the reputation of having done more for the advancement of safety than any other service industry—that the public feels "absolutely safe" on a passenger train. Next Mr. Withrow wanted to know if passenger trains are operated as safely as the public thinks they are; but did not get what he regarded as an answer to the question from Mr. Corbett who gave an affirmative reply qualified by a reference to the "possible hazard" of long freight trains on adjacent tracks.

Representative Halleck of Indiana asked the witness if he could imagine any situation wherein a train of more than 70 cars would be safe and economical. Mr. Corbett could not—he thinks 70 cars should be made the "absolute limit." He was unable to give Mr. Halleck any figures to compare grade crossing accidents with those caused by long trains. The Indiana congressman then went on to observe that he represented an agricultural district and had received many letters from farmers opposing the bill; thus he wanted to know where any possible resultant increase in freight rates would fall—on the farmers of Indiana or consumers of New York. After saying again that he saw no increased costs in the picture, Mr. Corbett continued to assert that his organization has letters stating that the railroads are going out asking people to write to the committee; going out among their employees and "almost demanding" that such

letters be written. Thus the witness saw a build-up of opposition which he called "so much bunk." But Mr. Halleck insisted that the cost aspect is an important point, because if there is going to be no increase, that factor would not have to be balanced against the bill's "good points."

Mr. Corbett promised that later witnesses would answer several questions asked by Representative Bulwinkle of North Carolina about 1937's long-train accidents. Whereupon Representative Boren again spoke up in the interests of factual data, stating that he wanted to "challenge both sides" to present facts and figures.

O. R. C. Presentation

The second labor witness was W. D. Johnson, vice-president and national legislative representative of the Order of Railway Conductors. He read a prepared statement which was interrupted at various points by questions from committee members. It was Mr. Johnson's contention that S.69 is "rightfully termed a 'safety measure.'" Its "primary object is to promote safety and to secure at least reasonable comfort for train-service employees."

He went on to develop this thesis along lines similar to Mr. Corbett's testimony, citing the difficulty of transmitting signals and mentioning also the lack of time for proper inspection of a long train. He said he spoke with a background of 38 years of railroading during which he was "actually in charge of trains of greater length than provided for in the bill now before you."

The witness was sure that opponents of the bill "will raise the same financial objections" as they raised in the past, so he went on to discount such estimates as "mere assumptions." The O. R. C. believes on the contrary that "the operation of a train limit law will reflect a saving the same as other safety laws which have been enacted."

Mr. Johnson introduced two exhibits, based on data from records of the O. R. C. Accident Insurance Department. One covered 417 accident claims on account of shock on trains of 70 cars or more from August, 1929, to December 31, 1936, for which the Accident Insurance Department paid \$64,424; the other covered payments totaling \$35,358 on 310 claims growing out of accidents during the same period on trains of less than 70 cars.

Interested in I. C. C. View

At one point in the questioning of Mr. Johnson, Representative Wolverton said that it would seem that the Interstate Commerce Commission's experience in investigating accidents would have led the regulatory body to some conclusion on the long-train question. Mr. Johnson was "satisfied" that members of the I. C. C.—"perhaps not all" members—realize there is a hazard in long-train operation. Then Mr. Wolverton suggested that it might be wise if the "factual side" were presented ahead of the setting forth of conclusions.

Representative Kennedy wanted to know if augmented train crews would solve the problem, but Mr. Johnson insisted that 70 cars should be the limit regardless of the size of the train crew. Shocks, he said, would not be eliminated "if you put a man on every car." The witness told Representative Wolverton that so far as he knew the O. R. C. is taking no part in the Ex Parte 123 rate-increase case, either for or against the railroad petition. However, Mr. Johnson's organization would

take no different position on S.69 if the Ex Parte 123 application were denied, since they take the position that train-limit legislation will not add to railroad costs.

Mr. Wolverton reminded the witness that the cost argument on which much of the opposition to the bill is based is a "very important" one; and thus it was to be assumed that labor would support its position in that connection. Mr. Johnson replied with the assertion that he could show that railroads "are not singing a new song"; and that labor has as much right to assume that the cost of the proposed legislation will be negligible as management has to assume it will be \$90,000,000.

At this point Representative Kennedy referred to a quotation read by the witness from the testimony of J. W. Smith, vice-president and general manager of the Boston & Maine, before a Senate committee of the seventy-fourth congress which was considering a train-limit bill. At Mr. Kennedy's suggestion that such be done "in fairness to Mr. Smith" Mr. Johnson read into the record an additional paragraph from the B. & M. vice-president's testimony.

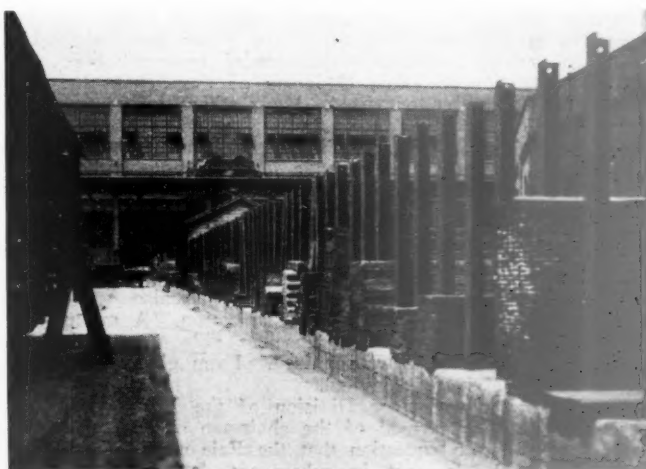
Shippers Oppose 15 Per Cent Increase

(Continued from page 151)

Such adjustments should, we think, be left to negotiation after the increases are made and not injected into this proceeding."

The Illinois Chamber of Commerce, in a formal letter to the commission, stated its belief that the railroads under present circumstances are entitled to an appreciable increase in rates. "There appears," the letter said, "to be not only justification for an increase in the rate structure as applied to our railroads but there appears to be no other way out unless we are to face government ownership and control. We are basically interested in this feature and we believe that every taxpayer will be when he understands that a solution involving government ownership will disorganize the tax structure of many local governments throughout the country, and if we may rely upon the experience of other countries, which have experienced government ownership of railroads, the tax burden of the average citizen would be increased to an appreciable extent and it would probably inject into railroad management a degree of political control which would be undesirable to say the least."

* * *



Concrete and Steel Racks for Bar Iron

Wheeler Demands "Reorganization" of I.C.C.

WASHINGTON, D. C.

SENATOR WHEELER of Montana, on January 9, issued a formal statement in which he assailed the Finance Division of the Interstate Commerce Commission for what he called its laxity in scrutinizing the certification of Reconstruction Finance Corporation loans to such railroads as the Erie and the Baltimore & Ohio. He went so far as to characterize the Division's action in recent cases as a violation of the "common sense and spirit of the law," and demanded a reorganization of the commission "from within." Senator Wheeler levied his attack at the majority of the Division consisting of Commissioners Meyer and Porter, who concurred in the Erie and B. & O. decisions, but was "very glad to note" that Commissioner Mahaffie, whom President Roosevelt has recently reappointed, dissented in both cases. It was also pointed out that Commissioner Carroll Miller sat with the members of Division 4, on the B. & O.'s application and voted with the majority.

Senator Wheeler's Statement

The complete text of Senator Wheeler's statement follows:

There is much that should be done to aid the railroads. For my part I am and shall continue to work for these things, through co-operation with the railroads and government departments and through helpful, constructive legislation.

No one, however, can maintain that the capital structure of every railroad should be maintained untouched as they now stand. Many are overcapitalized either because of unwise financial policies or excessive costs or charges in the commercial condition of the country, making some of the railroad properties of no practical value from the standpoint of earnings or even to the public service. In short, there are railroads that need to be reorganized and there is need for some consolidation.

Four years ago Congress recognized this by laying down a policy that Reconstruction Finance Corporation loans should not be extended to roads in need of reorganization.

Not only is this the law but, to my mind, it is a wise policy. Extending loans to a road that must inevitably be reorganized simply permits some creditors to be favored over others and pushes the investors, whose investment is already imperiled, deeper and deeper into the morass of debt. Furthermore, to keep a tottering road out of receivership is unfair to labor. A road struggling to keep out of bankruptcy cuts its maintenance, fires shopmen, suspends the purchase of even necessary supplies, all to scrape pennies to pay unearned bond interest. Once in receivership, such criminal economies, which hurt both labor and business, are cut out.

Cites Protests Against "Unsound Policy"

These conditions led many in the Senate and the House to protest against the unsound policy pursued by the Finance Division of the Interstate Commerce Commission and by the Reconstruction Finance Corporation six years ago, of making loans to various railroads which needed reorganization. The late Senator Couzens, then chairman of the Senate Interstate Commerce Committee, protested. Many others, including myself, protested.

On December 29, 1937, the Finance Division of the Interstate Commerce Commission approved a loan of some \$6,000,000 by the Reconstruction Finance Corporation, to the Erie Railroad. The commission found that the collateral was inadequate, and since the Erie had no more, insisted on a guarantee by the Chesapeake & Ohio, which controls the Erie. However, the RFC Act forbids the commission to approve a loan, regardless of the collateral, unless the commission can also certify that the railroad is not in need of reorganization. A majority of the Finance Division found themselves able to say that the Erie did not need to be reorganized. I am glad to note that Commissioner Mahaffie dissented.

At the time the Finance Division of the I.C.C. acted (apparently with the approval of the chairman of the RFC), the facts showed beyond question that the Erie needed reorganization. Every development in subsequent days reinforces this conclusion. A few days after the commission's approval, the

Chesapeake & Ohio refused to guarantee the loan. The RFC was therefore unable to advance the money and the Erie defaulted on its bond interest, which is, of course, the usual first step toward receivership. Chairman Jones of the RFC, in a newspaper interview published on January 7, indicates that the only end for the Erie is reorganization.

The St. Paul, the Chicago & North Western and other roads received a clean bill of financial health from this same division and loans from the RFC, and within a few months thereafter went in receivership.

Is this fair to the government? Is it fair to the investing public? It does help the insiders but that is all.

At the present moment there is an even more glaring case, the Baltimore & Ohio. The Finance Division—again I am glad to note with Commissioner Mahaffie dissenting—recently approved a loan of some \$8,000,000 to the B. & O., and the RFC announced its approval even before the I.C.C. acted. The railroad said that it needed the money for maintenance and equipment purchases. Loans for purchase of equipment or maintenance of property do not require a certificate that a road is not in need of reorganization but loans for any other purpose do. The majority commissioners were willing to accept the road's application at face value and avoided their legal duty to certify that the B. & O. is not in need of reorganization.

The loan, however, was not truly for these purposes at all. It was in part to pay for past maintenance, and over \$2,000,000 was to pay maturing equipment trust certificates, some outstanding for fifteen years. It is a fraud on the taxpayers to call this a purchase of equipment within the meaning of the RFC Act. Furthermore, the commissioners confined themselves to the letter of the railroad's application and either did not know or preferred not to consider that what is chiefly weighing on the B. & O. at the moment is an interest payment of over \$4,000,000 due February 1. The B. & O. applied for a loan in part for December and January payrolls, presumably planning to use the funds it should have spent on these to meet its February 1 interest. Surely the Finance Division of the commission was sufficiently skilled to analyze such elementary book-keeping. The reason for failing to do so is obvious, however.

Furthermore, the law instructs the commission to see that the government's money is protected by adequate collateral. Yet the collateral for the former RFC loans now has a market value of less than the amount of the loans and the collateral offered for the present \$8,000,000 loan is worth at least \$2,000,000 less than the amount of the loan. These facts the Finance Division of the commission knows and is calmly gambling on a stock market rise to protect the taxpayers' money.

If a railroad is to borrow money from the RFC, Congress insisted, and it is still the law, that the commission certify that the road does not need reorganization. This was done to protect the taxpayers' money. Congress never intended, and to my mind still doesn't intend, to pour public funds into the bottomless pit of badly financed railroads. Such a policy would rob the taxpayers and in the long run be a detriment to labor and to investors. It would aid only men with inside knowledge who need time to sell out their poor investments. It would be fraud on people who buy the railroad's securities in the few months between the loans and the inevitable bankruptcy.

Holds I.C.C. Disregards Law

In the cases I have mentioned the Finance Division of the commission has disregarded the plain facts of the railroad situation and the spirit and the letter of an Act of Congress. The action of the majority commissioners was a violation of common sense and of the spirit of the law.

I have deemed it necessary to call attention to this matter because of its intrinsic importance, and also because it is high time that we discard the use of trick rabbits in solving our railroad problem, develop and adhere to a sound, long-term policy, and confine its administration to officials who will understand the need for that sort of policy and faithfully support laws already passed and to be enacted, embodying such a policy.

The investigation of the finances of the railroads indicates to me that the Finance Division of the commission or its staff needs new life and new blood. While I have criticized the financial practices of some of these railroads, many of them could not have taken place and would not have taken place except for the laxity of the Finance Division of the commission, and the railroads have justly and frequently laid the blame at the door of the commission. I have been opposed to the President's plan of putting the Interstate Commerce Commission under the executive departments, but I agree with him that the commission ought to be reorganized. It ought to be reorganized from within, if the commission is going to function in the interest of the public or of the United States Treasury.

It is time some one called a halt on these raids on the Treasury.

NEWS

Wheeler Hears Ford Testimony

Motor manufacturer reveals
details of sale of D. T. & I.
to Pennroad

Senator Wheeler's committee investigating rail finance, on January 7, heard that the Pennroad Corporation was formed to purchase the Detroit, Toledo & Ironton from Henry and Edsel Ford in 1929. This information was divulged by A. J. County, vice-president in charge of finance and corporate work for the Pennsylvania, who, with Edsel Ford, were the chief witnesses at the January 7 session. The Senate investigators placed in the record evidence which showed that the Fords sold the road to Pennroad for \$35,499,312, which, according to A. H. Harris, vice-president of the New York Central, was about three times as much as its real value. The Fords had purchased the road in 1920 and had built it up to a point where, according to Edsel Ford, the property was well-maintained and had a good supply of equipment. He also testified that at the time of the sale to Pennroad the property was earning a six per cent return on \$36,000,000. It was later brought out, though, that this increased earning power was largely due to the fact that the Ford Motor Company had diverted all its traffic to the road.

Senator Wheeler also read several letters indicating that the Pennsylvania was interested in the road largely because of the traffic possibilities from the Ford Motor Company. All during the negotiations which led to the purchase by the Pennroad Corporation of the D.T.&I., Pennsylvania officers wanted Mr. Ford to write into the contract of sale an agreement to continue routing the Ford company's traffic over the D.T.&I. in a volume about equal to that carried when the road was owned and operated by the Fords. Mr. Ford refused to have anything to do with such a provision and even went so far as to insist that the purchase price of \$35,000,000 be in cash.

Senator Wheeler asked Mr. County whether or not he had considered the fact that such an agreement for routing the traffic over the line would be in violation of the Elkins Act. Mr. County said that counsel had so advised him, but that he did not want to pay out such a large amount of money without some specific assurance that the Pennsylvania would benefit.

The committee also revealed that the New York Central had previously ap-

proached the Fords regarding the property, but had decided that the price asked by Mr. Ford was too high. Senator Wheeler asked Edsel Ford why they had decided to sell the road. He replied that they had taken over the property with the idea of trying out a lot of new ideas in transportation, but due to lack of co-operation of other carriers and red-tape and legal restrictions of the Interstate Commerce Commission, they decided that they could not do what they desired to do. He said that they were specifically interested in light-weight equipment.

Senator Wheeler disclosed at the January 11 session of his committee the fact that in 1929 when the Pennroad Corporation acquired control of the Pittsburgh & West Virginia, it paid more than \$4,000,000 in excess of the market price for the common stock. Letters were read into the record which showed that the Pennroad Corporation bought 222,000 shares of the common stock at \$170 a share, making a total of \$37,740,000. The stock is now quoted on the New York Stock Exchange at less than \$17 a share, representing a loss to Pennroad of \$33,966,000. The chief witnesses at this session were Frank E. Taplin, president of the Pittsburgh & West Virginia, who in 1929, negotiated the deal for the sale of the road with the late General W. W. Atterbury, at that time president of the Pennsylvania, and A. J. County, vice-president in charge of finance and corporate work for the Pennsylvania.

The day's controversy centered around the question as to whether or not there was any written contract regarding the stock purchased. Mr. Taplin contended at this hearing and at the Pecora investigation several years ago that he had never seen a written agreement or contract which would bind either of the parties in the sale of the control of the P. & W. Va. and that he had no knowledge that there was one in existence. Senator Wheeler produced a "memorandum" of an agreement which had been signed by Charles F. Taplin, a brother of Frank Taplin, and his attorney, and Henry Lee, president of the Pennroad Corporation. Senator Wheeler asserted that this written agreement was a binding contract. He also went on to point out that Mr. Lee had testified in the Pecora investigation to the effect that as far as he knew there had never been anything in writing regarding the sale of the P. & W. Va. stock to the Pennroad Corporation. Senator Wheeler, as did Mr. Pecora, thought that this was a strange way to conduct business when contracts of this much importance were not reduced to writing. Later Senator

(Continued on page 168)

Pelley and Whitney on Unemployment

A.A.R. president and rail labor
executive appear before
Senate committee

J. J. Pelley, president of the Association of American Railroads, and A. F. Whitney, president of the Brotherhood of Railroad Trainmen, were witnesses on January 12 at Washington, D. C., before the special Senate committee investigating unemployment and relief. Mr. Pelley told the committee how the railroads, with an upward trend in revenues and a return of normal traffic, could not only stimulate industrial development throughout the country by the resumption of railroad buying in large volume, but could re-employ thousands of their own workers who have been furloughed. Mr. Whitney read a two-part statement, the second section of which related "particularly to the relation of the railways to the unemployment and business situation."

"Railways are among the largest purchasers of the products of industry," Mr. Pelley pointed out. "When their business is good, they buy and utilize more than 20 per cent of the coal output of the United States, nearly 20 per cent of the fuel oil output and the timber cut, more than 15 per cent of the iron and steel output, and appreciable proportions of other heavy goods, such as cement, stone and gravel, and the like. If their traffic and revenues return to more nearly normal levels than at present, their annual equipment program could easily contemplate the installation of 2,000 new locomotives, and 100,000 new freight cars per year. In 1937, they installed less than 500 new locomotives, and 75,000 new freight cars.

"The money expended by railway companies for equipment, fuel, and other products of industry supplies employment to many thousand persons outside of the railway industry. It has been estimated that for every man directly employed by the railways in their own operations, one man is employed by other industries in the production and distribution of the 70,000 different kinds of articles purchased and used by the railways.

"It follows that when railways lay off men, men also lose employment in other industries. Conversely, when railways find it possible to reemploy men, particularly for maintenance work, men in other industries are also called back to work in iron and steel plants, in lumber camps

and mills, in cement factories, and in thousands of other industrial plants.

"Railway employment today is less by some 75,000 men than it was a year ago. If these men were brought back to work in railway shops and on the tracks, production of materials they would utilize would give employment to another 75,000 men outside the railway industry, thus supplying re-employment to a total of not less than 150,000 men."

Illustrating his point that railway employment and purchases closely follow the trend of railway revenues, Mr. Pelley said that "when revenues were declining, from 1929 to 1933, employment and capital expenditures also declined. With an upward trend in rail revenues, from 1934 to the latter part of 1937, employment and capital expenditures also increased. The same relation is illustrated by the trend of railway operations during the year 1937. That trend was first upward, then downward, and both trends had a striking effect on railway employment and expenditures."

"As a result of their improved financial position during the first nine months of 1937, the railways employed more men, bought more goods, and ordered more equipment, than in 1936. As a result of the sudden recession of the final three months, however, railway managements found it imperative to institute immediate and drastic economies. They reduced their forces, cut their maintenance programs, curtailed their purchases of material and supplies to the greatest possible extent, and practically suspended their programs for new equipment and other improvements to plant."

"During the first nine months of the year 1937, railway employment was consistently greater than in 1936. During the final three months, however, a reversal of the employment trend brought the average for that period down to 3.0 per cent below 1936. This decline was an accelerating one, amounting to 32,000 men in November, and 73,500 men in December. In other words, the railways employed 73,500 fewer men last December than they did in December, 1936."

"Purchases of fuel, material and supplies by the railways was heavy during the first nine months of 1937, but fell off rapidly toward the end of the year. Purchases during the first nine months of 1937 were 30 per cent greater than the corresponding purchases in 1936, while the purchases of the final three months were 4 per cent less than in 1936. Here again, the decline grew greater as the year drew to a close, the rate of decrease in railway purchases being as high as 15 per cent in December."

"Equipment purchases and installations were also heavy during the first nine months of 1937, but declined rapidly during the remainder of the year. In fact, new orders were negligible in the last quarter of 1937, and the units of equipment delivered in that period were those ordered some months previously, under contracts which the railways were legally bound to carry out."

"Thus when revenues were rising in 1937, railway employment and purchases increased. When revenue declined, em-

ployment and purchases also decreased. A return of traffic, and an upward trend in revenues will again enable the railways to set up a program of reemployment and increased purchases."

That part of Mr. Whitney's statement relating specifically to the railroads ended with "Suggestions" as follows:

1. That federal regulation, through the Interstate Commerce Commission, be extended to cover domestic water and air transportation, and with early and complete enforcement of Motor Carrier Act to eliminate unfair competition, and competition of subsidized transportation.

Railroads must pay 8 cents in taxes for every dollar they receive, while their competitors on the highways pay only about 3 cents, and their competitors on the waterways pay next to nothing. This inequality should be corrected. The railroads contribute so much to employment and national purchasing power, buying 19 per cent of our fuel oil output, absorbing 17 per cent of total iron and steel output of the country, 23 per cent of our national output of bituminous coal, and 16 per cent of the total timber cut (this figure would be increased to above 20 per cent if indirect purchases were included), that sound economic policy requires an adjustment of this situation.

2. That an increase in freight rates and passenger fares be authorized contingent upon this increased revenue being earmarked for use in effecting economies and improving operations and service through the purchase of equipment, materials and supplies. The *Railway Age* in its January 1, 1938, issue contains an article (Page 6) advocating the proposed freight rate increase, which is captioned:

"Railway purchases from manufacturers are closely controlled by their net railway operating income—Boost rates \$500,000,000 and railway buying will certainly be at least that much greater than it would be without the increase."

The railways claim they are one billion dollars behind in their maintenance and increased revenues should be proportionately used for labor and materials to the end that this deficiency be absorbed as rapidly as possible.

3. That the Government continue to handle mail contracts with railways instead of diverting this business to motor truck transportation.

4. Revise the undistributed profits tax act so as to permit roads to make provision in good years to carry them through depression years.

5. Amend the retirement act and provide for compulsory retirement at 70, optional at 65, in lieu of present provision.

I.C.C. Staff Appointments

The Interstate Commerce Commission has announced the following appointments, effective January 1: William A. Powers as assistant director, Chief Section of Tariffs; member, Released Rates Committee; voting member, Board of Suspension; and observer for the commission on the railroads' National Tariff Simplification Committee, vice George M. Crosland, retired; William B. Hammer as chairman,

Board of Suspension; Walter N. Brown, assistant director, as voting member, Board of Suspension; Clarence G. Jensen as chairman, Released Rates Committee; Paul E. Huettner as member, Released Rates Committee.

Oral Argument on North-South Divisions

The Interstate Commerce Commission has set February 17 as the date for oral argument in No. 24160 which involves rate divisions between carriers in Official and Southern territories.

Scalemen to Hold Convention at Chicago in March

The National Scalemen's Association will hold its twenty-second annual convention at the Hotel Sherman, Chicago, on March 14-16, inclusive. Ample space has been made available at the convention for a manufacturers' exhibit.

Would Grant S.A.L. Truck Application

Joint Board No. 177, composed of J. C. Darby of South Carolina, has recommended in a proposed report that the Interstate Commerce Commission grant the Seaboard Air Line a common-carrier certificate for trucking service on a route between Greenwood, S. C., and Great Falls.

Model Engineers to Exhibit

The New York Society of Model Engineers will hold its tenth annual show and exhibition at the society's headquarters, 152 West Forty-second street, New York, from February 12 to 26, inclusive. The show will be open to the general public from 1 to 10 p. m. The principal feature of the show will be the operation of a complete model railway.

Mahaffie Confirmed by Senate

The Senate, on January 11, confirmed the appointment of Charles D. Mahaffie to be an Interstate Commerce Commissioner for a six year term expiring December 31, 1944. No word has been forthcoming as to whether or not President Roosevelt will reappoint Commissioner McManamy, but he will continue to serve until his successor is appointed.

Louisiana Trainmen Want Electric Lanterns

The Brotherhood of Railroad Trainmen of Louisiana on December 30 filed a petition with the Louisiana Public Service Commission, seeking to force all railroads operating in the state to substitute electric lanterns for oil or kerosene burning lanterns, contending that the latter are obsolete and hazardous.

Trueb Heads Eastern Passenger Agents

The General Eastern Passenger Agents Association, at its annual meeting held on January 6 in the Hotel Pennsylvania, New York, elected the following officers for 1938: President, C. C. Trueb, assistant general passenger agent at New York for the Pennsylvania; Vice-President, H. M.

Fletcher, assistant general passenger agent, Northern Pacific; Secretary, C. B. Perkins, general eastern passenger agent, Norfolk & Western; Treasurer, J. L. Homer, general passenger agent, Delaware, Lackawanna & Western; and Assistant Secretary, H. A. Lawrence, general agent at New York for the Union Pacific.

B. of L. F. & E. Vice-President Named Assistant Secretary of Labor

Charles V. McLaughlin, vice-president of the Brotherhood of Locomotive Firemen & Enginemen, has been appointed by President Roosevelt to be Assistant Secretary of Labor. Mr. McLaughlin succeeds Edward F. McGrady, who resigned recently to accept an executive position with the Radio Corporation of America.

Motor Freight Tariffs

The Interstate Commerce Commission has issued Tariff Circular MF No. 2 which cancels Tariff Circular MF No. 1 and publishes the latest regulations to govern the construction and filing by highway operators of common carrier freight rate and classification publications, and contract carrier schedules of minimum rates or charges.

Cartwright Introduces New Highway Bill

Representative Cartwright of Oklahoma has introduced in the House H. R. 8838, a bill appropriating \$125,000,000 for each of the fiscal years 1940 and 1941, to carry out the provisions of the Federal Aid Highway Act of 1916. Under the bill, grade crossing elimination will receive \$50,000,000 for both 1940 and 1941.

Favors Granting Bus Route to Northland Greyhound

Joint Board No. 96, composed of Samuel Bryan of Wisconsin, has recommended in a proposed report that the Interstate Commerce Commission grant the Northland Greyhound Lines, affiliate of the Great Northern, a certificate authorizing common-carrier bus operations over a specified route between Frederic, Wis., and Superior.

Latimer Confirmed

The Senate, on January 11, confirmed President Roosevelt's nomination of Murray W. Latimer to continue as a member of the Railroad Retirement Board for a term of five years from August 29, last. The name of Mr. Latimer, who is chairman of the Retirement Board, was sent to the Senate by the President on November 16, 1937, but was not acted upon during the special session.

I.C.C. History Published

The review of Interstate Commerce Commission activities, which was compiled in connection with last April's celebration of the regulatory body's fiftieth anniversary, has been published under the title "The Interstate Commerce Commission, 1887-1937." The work was prepared by the I.C.C. Bureau of Statistics in co-operation with other bureaus of the commission. It may be procured from the

Superintendent of Documents for \$1 per copy.

Pennsy Delivery Service is Upheld

Division 2 of the Interstate Commerce Commission has dismissed a complaint of the Master Truckmen of America, Inc., against the Pennsylvania alleging that its pick-up and delivery service on less-than-carload freight in New York City was in excess of the terms of its tariff. The commission found that the trucking companies employed by the Pennsylvania had never willfully performed the so-called inside service which consisted of handling freight in various loft buildings in New York City.

Warehousing Case Re-opened at New York

That part of Ex Parte 104, part VI, concerning relationships between the Erie and the Seaboard Terminal & Refrigeration Co., was re-opened on January 11 in New York in a hearing ordered by the Interstate Commerce Commission by petition of the latter party. It is the claim of the terminal company that it was not represented in previous hearings and on such basis takes exception to the decision of the commission respecting its practices in connection with the Erie.

Reports to I.C.C.

The Interstate Commerce Commission has issued an order requiring Class I and II railroads and switching and terminal companies to file annual reports for the year ended December 31, 1937, in accordance with Annual Report Form A which was approved and made a part of the order. The previous order on the matter, dated January 27, 1937, was annulled.

In another order the commission has extended from January 15 to March 1 the date for filing reports, as of January 1, of block signal, interlocking, automatic train stop, train control and cab signal and train order statistics.

Employment on P.W.A. Work

The Bureau of Labor Statistics of the Department of Labor has reported to Public Works Administrator Harold L. Ickes that more than one and a third billion man-hours of industrial employment were created in four years by the non-federal PWA program. Transportation accounted for 114,000,000 man hours of this total. The report also points out that in the manufacture of cars for electric and steam railroads, stimulated by PWA equipment loans, employment went up 354.2 per cent. The increase in employment in locomotive building during the period from July, 1933, to July, 1937, was 618.8 per cent.

Zephyrs Travel Four Million Miles

A total of 4,020,707 miles had been accumulated by the Zephyrs of the Chicago, Burlington & Quincy from their inauguration up to December 31. The Twin Zephyrs, operating between Chicago and the Twin Cities, had operated 1,665,538 miles; the Denver Zephyrs, between Chicago and Denver, 1,228,544 miles; the Pioneer Zephyr, between Lincoln and

Omaha, 461,799 miles; the Sam Houston Zephyr, between Fort Worth and Houston, 257,116 miles; the Ozark Zephyr, between St. Louis and Kansas City, 209,878 miles, and the Mark Twain Zephyr, between St. Louis and Burlington, 197,835 miles.

R.C.C. Distribution

The Railroad Credit Corporation will make a liquidating distribution of one per cent on January 31, amounting to \$735,115, according to a January 12 statement from President E. G. Buckland. Of this amount \$604,409 will be paid in cash and \$130,706 will be credited on carriers' indebtedness to the Corporation.

This will bring the total amount distributed to \$56,603,882, or 77 per cent of the fund originally contributed by the carriers participating in the Marshalling and Distributing Plan, 1931. Of this total \$29,351,990 will have been returned in cash and \$27,251,892 in credits.

Hearings March 28 on Southern Governors' Rate Complaint

The Interstate Commerce Commission has assigned for hearing at Birmingham, Ala., on March 28 the Southern governors' freight rate complaint, which has been docketed as No. 27746, The State of Alabama et al v. New York Central Railroad Company et al. Commissioner Lee and Examiner Mattingly will sit in the proceeding wherein the Southern Governors' Freight Rate Conference is alleging unreasonable prejudice to the South because of what it calls the carriers' failure to make joint rates to and from Southern territory on a level no higher than they make among themselves in other territories.

Census of Manufactures

The Biennial Census of Manufactures, covering the calendar year 1937, gets under way on January 25, when schedules will be mailed to manufacturers throughout the country, according to Director William L. Austin of the Bureau of the Census, Department of Commerce. The census will cover all manufacturing establishments in the United States making products valued at \$5,000 or more during 1937. The 1935 census showed 675 establishments engaged in railroad repair shop work. These establishments had 9,963 salaried employees and 155,310 wage earners, with salaries amounting to \$23,931,616 and wages totaling \$206,346,132. Products valued at \$420,097,165 were turned out by these establishments.

156 Fusion-Welded Tank Cars

The Interstate Commerce Commission has recently granted applications of five companies for authority to construct a total of 156 fusion-welded tank cars. The largest number of cars was involved in the application of the Union Tank Car Company for authority to build 100 for the transportation of petroleum products. The General American Transportation Corporation was authorized to build 25 and the American Car & Foundry Company 14 for the transportation of anhydrous ammonia, while the former will build another five, nickel-clad, for carry-

ing caustic soda solution. The remaining 12 will be built of chromium steel by E. I. duPont de Nemours & Company for the transportation of nitric acid.

I.C.C. Attorneys Denied Right To Practice

Division 1 of the Interstate Commerce Commission, in an Ex Parte proceeding, has denied the application of Raine Ewell of California for admission to practice before the commission on the grounds that he failed to reveal the fact that he had been disbarred in the federal courts in California. Division 1 has also denied the application of Robert Guy Carter of Texas for permission to practice before the commission, but has allowed him to file a new application in three months. The commission found that Mr. Carter had attempted to have one of his cases before the commission postponed on account of illness despite the fact that on the day he was supposed to be indisposed, he was shown to have tried a case in another court.

Santa Fe to Inaugurate More Streamlined Trains

The Atchison, Topeka & Santa Fe will, on April 1, place two streamlined, stainless-steel, Diesel-drawn trains in operation between Chicago and Kansas City, Mo. The west-bound train will be known as the Kansas Cityan and the east-bound train as the Chicagoan. Each train will consist of seven cars, with a total seating capacity, including dining room and lounge spaces, of 300 passengers. The consist of each will include one combination mail and baggage car, three chair cars, a combination lounge car, a dining car and a parlor car. The chair car seats will be rotating and reclining and each car will have a smoking room and lavatory for men and a dressing room and lavatory for women with five seats in each.

Howard Succeeds Payson As Patent Division Counsel

Charles L. Howard, assistant western counsel of the Patent division of the Association of American Railroads, has been appointed western counsel, with headquarters as before at Chicago, to succeed George S. Payson, who has retired after 44 years service with the railroads as a patent lawyer. Joseph L. Baldwin, who for the past nine years has been connected with the eastern section of the patent division of the A.A.R. in Washington, has been appointed assistant western counsel, to succeed Mr. Howard. The latter formerly engaged in the private practice of patent law at Washington, D. C., giving up his practice in 1914 to become associated with the Western Railroad Association, Chicago, which was consolidated with the A.A.R. in December, 1936.

Would Grant U.P. Affiliate Bus Certificate

Examiner F. W. McM. Woodrow, of the Interstate Commerce Commission, in a proposed report to the commission, has recommended that it find that the Interstate Transit Lines (a Union Pacific affiliate) is entitled to continue operation as

a common carrier by motor vehicle of passengers and their baggage and of light express, mail and newspapers over specified routes in Iowa, Missouri, Minnesota, South Dakota, Nebraska, Kansas, Colorado, Wyoming, Utah, Arizona and Nevada by reason of having been engaged in such operations on June 1, 1935.

Joint Board No. 179, in a proposed report to the commission, has recommended that it authorize the Interstate Transit Lines to operate as a common carrier by motor vehicle between Excelsior Springs, Mo., and Kansas City, Mo.

Rivers and Harbors Work

A total of \$100,753,124 for new rivers and harbors work and \$46,692,585 for maintenance "can be profitably expended" during the fiscal year ended June 30, 1939, according to the annual report of Major General Markham, chief of engineers of the army, for the year ended June 30, 1937.

The larger estimates for new work include \$11,762,000 for the Mississippi river from the Missouri river to Minneapolis, Minn.; \$10,800,000 for the Missouri river at Fort Peck; \$6,000,000 for the Missouri from Kansas City to Sioux City; \$5,839,000 for the Illinois river; \$5,000,000 each for the Great Lakes to Hudson river waterway and the New York and New Jersey channels; \$2,500,000 for the Sabine-Corpus Christi section of the Louisiana-Texas intercoastal waterway; and \$2,219,000 for the Cape Cod Canal.

Pere Marquette Train Derailed on Concrete Track

Two passenger coaches, an express car and a mail car of a five-car passenger train were derailed on the experimental concrete-slab-supported track of the Pere Marquette at Beech, Mich., 16 miles west of Detroit, on December 17, resulting in the injury of some 23 passengers. The track at this point is supported on concrete slabs that were installed in 1926 and 1929, the rails being held in place by clips and bolts anchored in the concrete. While the cause of the derailment has not yet been determined, an unusual severe sleet storm occurred shortly prior thereto and it is possible that water penetrated under the rail clips and froze, causing the rails to spread and allowing the train to be derailed. In order to restore service as quickly as possible, a new track was constructed of standard materials on top of the concrete roadbed.

Sheehan to Address N. Y. Railroad Club on Steel Casting

At the next meeting of the New York Railroad Club to be held on Friday, January 21, in the auditorium of the Engineering Societies building, 29 West 39th street, New York, William M. Sheehan, manager, eastern district sales, General Steel Castings Corporation, will present an illustrated talk entitled "The Trend of Steel Casting and Railroad Equipment Design as Influenced by Higher Speeds." Brief comments representing their respective viewpoints of design, operation and maintenance of high speed trains and a discus-

sion of track stresses set up by the same will be presented by R. S. Binkerd, vice-president, Baldwin Locomotive Works; W. H. Flynn, general superintendent, motive power and rolling stock, New York Central; James Partington, manager, engineering department, American Locomotive Company; J. V. Neubert, chief engineer maintenance of way, New York Central.

The Canadian Roads in November

The Canadian Pacific operating net in November, 1937, totaled \$3,463,833, as against \$3,538,651 in the same month in 1936, while net for the eleven months ended with November, 1937, was \$20,816,881, showing an increase of \$1,047,577 over the corresponding period of 1936.

For the month gross revenues were higher by \$875,608 at \$12,992,167, but operating expenses also increased by \$950,426 to \$9,528,333, as against November, 1936. For eleven months gross was higher by \$6,513,762 at \$132,823,322, while expenses rose \$5,466,183 to \$112,006,441.

The Canadian National has reported net operating revenue for November at \$1,919,227, a decrease of \$464,044, while net for the 11 months at \$15,878,665 was \$3,651,414 greater than in the corresponding period of the previous year.

For the month operating revenues were \$621,853 higher but expenses rose by \$1,085,897 leaving net of \$1,919,227 as against \$2,383,271 in November, 1936. For the 11-month period operating revenues were \$12,790,919 higher at \$182,177,183 but expenses also increased by \$9,139,505.

B. & M. Inaugurates "Moonlight Snow Train"

The Boston & Maine will inaugurate what is believed to be the country's first "Moonlight Snow Train" on the evening of Saturday, January 15, thus creating a modern counterpart of that old-fashioned New England institution known as the "Moonlight Sleigh-ride". In the expectation of a full moon to illuminate the snow-covered slopes, the "Moonlight Snow Train" will leave Springfield, Mass., at 6 p. m., and, with stops at Holyoke, Mass., and Northampton (just in case the college girls are interested), will arrive at Brattleboro, Vt., at 7:50 p. m. The return trip will be made at 10:30 p. m.

A local committee at Brattleboro is to welcome the party with special preparations for entertaining the first venture of its kind. A 75-acre slope, with ski trails for the expert and gentler slopes for the less experienced, will be open with special guides on duty to direct the "Moonlight Snowtrainers" to where the sport is best. Should nature be unkind and fail to produce a good moon, the Brattleboro committee will be ready to turn large flood lights on the sports area.

Governors Reply to Pennroad on Trusteeship Refusal

A letter signed by the governors of the six New England states has been sent by Governor Wilbur L. Cross, (Conn.) chairman of the New England Governor's Conference, to H. H. Lee, president of the

Pennroad Corporation, in answer to the refusal of that corporation to place its stock interest in the New York, New Haven & Hartford and the Boston & Maine in the hands of neutral trustees. Another letter, written over the same signatures, has been sent to M. W. Clement, president of the Pennsylvania, noting "with appreciation" the offer of that road to trustee its holdings in the New Haven, as reported in the *Railway Age* for October 23, page 588. Specific arrangements for the naming of the trustee group and transfer of the holdings will soon be completed, the letter stated further.

In the letter regarding Pennroad's refusal to follow suit (see the *Railway Age* for December 18, page 887), the governors express their intention to continue their efforts to separate the New Haven and the Boston & Maine from the influence of Pennroad and "all other outside interests which . . . are inimical to the development, prosperity and best interests of the New England railroads."

Public Harmed by Its Ignorance of Carriers' Role

"Economic ignorance" in the public attitude toward railways and failure in government regulation to understand the true role of the carriers in a national economy were the charges made by Samuel O. Dunn, chairman of the Simmons-Boardman Publishing Corporation and editor of *Railway Age*, in an address before the Canadian Railway Club at the Windsor Hotel, Montreal, Que., on January 10. The speaker contended that the condition of the railways of North America, and especially of the United States, is due in great measure to ignorance of their proper role in economic welfare on the part even of most business men.

Applying this criticism to railroad regulation as practiced in the United States, Mr. Dunn declared that through 30 years of government supervision, "there has never been, excepting in crises threatening them with bankruptcy, any recognition, by regulating authorities, shippers or employees, of the true role of railways in a national economy or of what is necessary to enable them to play it." Thus, as he pointed out, railway rates have not been allowed to follow the trend of commodity prices and "the balance between other industries and the railways was disrupted." Likewise, as is especially true today, railways have been barred from profits which would enable them to buy adequate capital goods.

Train-Limit Bill Attacked by Illinois Manufacturers

A vigorous protest against passage of the bill limiting train lengths to 70 cars has been lodged by the Illinois Manufacturers' Association with the House committee on Interstate and Foreign Commerce, which began hearings on the bill on January 11. The protest, which was transmitted by James L. Donnelly, executive vice-president of the association, contended that if enacted into law the bill would affect detrimentally the railways' safety record; interfere with railway serv-

ice, particularly in periods of peak traffic or national emergency; destroy the value of large amounts of capital expenditure; require future capital expenditures, otherwise unnecessary; result in large and unwarranted increases in annual operating expenses; increase unemployment in the railroad industry; further reduce the amount of current railway purchases of materials and supplies; and increase unemployment in all of those industries of which the railways are important customers.

In closing its appeal, the association drew an analogy between the effects of the train-limit bill and that of a hypothetical measure designed to limit the capacity of automobiles operated in Washington. "Suppose", it says, "Congress should enact legislation providing that there should be no more two-seated automobiles in the district, such legislation arising as a safety measure because of the lurches and jerks received by passengers in the rear seats. The situation is directly analogous. With six or seven thousand coupes replacing every four or five thousand sedans now in use, what would your Washington motor vehicle casualty be? What congestion and impaired service would you suffer? What would your costs be in junking your present sedans? What would you have to spend for new coupes and for street changes required to handle more cars? What would be the increase in the tire, gasoline and oil bills of district residents?"

Long Island Places Two More "Double Deckers" in Service

The Long Island has placed in operation on various multiple-unit electric trains two new light-weight aluminum-alloy double-deck passenger coaches as a further experiment in increasing the carrying capacity of cars for suburban service. The new cars are being operated for several weeks as part of eight different scheduled trains running every weekday over the Port Washington, N. Y., Hempstead and Montauk branches of the road. One of the new double-deck cars is equipped with four high-speed motors, while the other serves as a trailer.

The Long Island first experimented with the double-deck type coach in the late summer of 1932, as described in the *Railway Age* of August 13, 1932, page 221, when one car, the first of its kind on an American trunk line, was placed in service. While similar fundamentally with this original coach, the new cars are longer and have greater seating capacity. The overall length of each is 80 ft. and seats are provided for 136 passengers. The original double-deck car was built 72 ft. in length, seating 120 riders. Notwithstanding this increase in size and capacity, substantial weight reduction has been effected. The new motor-equipped double-deck coach weighs 90,000 lb., while the trailer weighs 80,000 lb., as compared with the standard all-steel single-deck passenger coach in use on the Long Island which measures 64 ft. overall, weighs with its motors 114,000 lb. and accommodates but 80 passengers, or 56 less each than the new light-weight cars.

The cars are constructed with two tiers

of seats at different levels. The seats of the lower tiers have their floors 14 in. below the center aisle of the car and are reached by a step-down. The seats of the upper tiers are placed above them and are reached by a step-up. Ample space is provided between the seat cushions for convenience in entering and leaving, and both upper and lower tiers have two windows to each pair with suitably located parcel racks.

Railroads Ask I.C.C. to Modify Power Gear Order

In the hope of lightening their financial burden during the coming year, the Association of American Railroads has petitioned the Interstate Commerce Commission to modify its order of June 8, 1937, relative to the installation of power reverse gears. The commission's order provided that the railroads should install power reverse gears on all locomotives when they were brought in for class 3 or heavier repairs. The railroads would have the commission modify this order so that they will be required to install the gears when class 1 or 2 repairs are made. The petition calls attention to the fact that prior to the entry of the commission's order, the complaining brotherhood officials and the railroads entered into an agreement providing for the installation of power reverse gears on all locomotives when they were shopped for class 1 or 2 repairs, with all installations to be made not later than January 1, 1942, unless otherwise agreed between the management and the general committees of the brotherhood.

The railroads particularly called attention to the serious financial condition which they are in at this time and point out that the installation of power reverse gears will be unnecessarily hastened if the commission's order is followed because of the greater frequency of class 3 repairs. They go on to contend that all locomotives will have to be equipped by 1942 with the result that there is no need at this time to speed up the installations.

Would Bring Panama Railroad Under Government Audit

The present immunity of the Panama Railroad Company from supervision of its expenditures by the Bureau of the Budget or Congress and from audit of its transactions by the General Accounting Office was criticized by Acting Comptroller General R. N. Elliott in his annual report submitted to Congress last week. Mr. Elliott recommended legislation which would provide for an accounting and audit of the railroad's financial transactions, and for the annual transfer of its net profits into the U. S. Treasury as miscellaneous receipts.

The report points out that the Panama Canal and the Panama Railroad Company are separate organizations, but, he adds, "in the administration and performance of work they are united and under the control of the Governor of the Panama Canal." Because of this, Mr. Elliott regards his proposed audit of the Railroad Company as "very important" in view of the fact that "Under such circumstances the natural tendency would be to favor the Pan-

ama Railroad Company—whose revenues are not subject to outside control—at the expense of activities financed by governmental appropriations." Also, the commingling of funds "too readily presents opportunity for irregularity in the application of the funds of the Panama Canal or the Panama Railroad Company."

Mr. Elliott continues to elaborate on this point, leading up to his legislative recommendation which comes after the assertion that "There had never been more than a fictional line of demarkation between the interrelated activities of the two organizations."

The recently-published annual report of the Governor of the Panama Canal for the fiscal year ended June 30, 1937, shows that during that period a net revenue of \$14,053,945 was earned by the Canal and its affiliated enterprises. This net revenue, the report says, is 2.56 per cent of the gross capital investment at the beginning of the year, and is \$2,442,299 less than the interest charge of 3 per cent on the same capital investment. The 1935-36 deficit after allowance for interest was \$947,254.

The foregoing figures do not include the various operations carried on by the Panama Railroad Company, which in 1936-37 yielded a net profit of \$1,358,596 as compared with \$1,077,987 for the previous fiscal year.

Mid-West Board Meeting

The forty-fourth regular and fourteenth annual meeting of the Mid-West Shippers' Advisory Board was held at the Palmer House, Chicago, on January 6. The forecast of carloadings for the first quarter of the year indicates that 761,723 cars will be loaded, as compared with 838,673 actually loaded in 1937 and 735,569 in 1936. Estimated decreases in shipments include 52 per cent for iron and steel; 35 per cent for automobiles, trucks and accessories; 35 per cent for lumber; 30 per cent for products manufactured from lumber; 25 per cent for sand, gravel and crushed stone; and 20 per cent for cement. The grain committee estimated a 30 per cent increase in grain shipments because the loan policy of the government has delayed shipments, with the result that the available supply of corn is 80 per cent greater than a year ago.

L. M. Betts, manager of the Car Service division of the Association of American Railroads, summarized general transportation conditions, emphasizing the fact that the railroads have kept their equipment and facilities in such shape that they have been able to meet shippers' demands with few complaints. In discussing the carriers' application for a 15 per cent increase in freight rates, he said that an increase, when granted, will react to the benefit of shippers in the form of new equipment purchased for their use. The increase in rates, he said, will not disturb competition for the truck industry is in the same condition as the railroad industry and will adjust its rates accordingly.

Officers elected for the ensuing year are as follows: general chairman, W. Y. Wildman, managing director of the Illinois Coal Traffic Bureau, Chicago; alternate general chairman, George M. Cummins, traffic

commissioner of the Traffic Bureau of the Davenport, Iowa, Chamber of Commerce; and general secretary, R. V. Craig, general traffic manager of Allied Mills, Chicago.

At a luncheon under the joint auspices of the board and the Public Affairs committee of the Traffic Club of Chicago, Phil S. Hanna, editor of the Chicago Journal of Commerce, spoke on business conditions in 1938. He portrayed 1938 as a turning point in national affairs and predicted that recovery from the present recession would be accompanied by such rapid inflation that by spring business men would begin to realize that they were over-scared at the present time.

Freight Car Loading

Loading of revenue freight for the week ended January 1 totaled 457,359 cars, a decrease of 3,008 cars or 0.7 of one per cent below the preceding week, a decrease of 130,904 cars or 22.3 per cent below the corresponding week in 1937, and a decrease of 318,396 cars or 41 per cent below the same week in 1930. All commodity classifications except ore and forest products showed increases over the preceding week, while all commodity classifications except grain showed decreases under last year. The summary, as compiled by the Car Service Division, Association of American Railroads, follows:

Revenue Freight Car Loading			
For Week Ended Saturday, January 1			
Districts	1938	1937	1936
Eastern	97,170	133,363	125,461
Allegheny	82,255	127,083	107,504
Poconong	31,584	44,061	42,530
Southern	70,207	85,996	79,281
Northwestern ..	56,328	63,302	62,813
Central Western ..	78,583	85,519	79,101
Southwestern ..	41,232	48,939	45,136
Total Western Districts	176,143	197,760	187,050
Total All Roads	457,359	588,263	541,826
Commodities			
Grain and Grain Products	28,991	25,747	25,068
Live Stock	10,091	11,644	11,024
Coal	103,880	131,138	146,369
Coke	5,062	10,544	9,504
Forest Products ..	16,769	25,070	21,257
Ore	5,344	8,969	4,722
Merchandise	115,520	132,829	123,908
L.C.L.	171,702	242,322	199,974
Miscellaneous ..	.....	.....	.....
January 1	457,359	588,263	541,826
December 25 .....	.....	460,367	562,578
December 18 .....	.....	603,292	730,048
December 11 .....	.....	622,131	739,096
December 4 .....	.....	623,337	745,295

In Canada.—Loadings for the week ended January 1 totaled 36,433 cars, a decrease of 2755 from the previous week and an increase of 281 over the comparable 1936 week, according to the compilation of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
Jan. 1, 1938.....	36,433	18,028
Dec. 25, 1937.....	39,188	22,552
Dec. 18, 1937.....	47,691	25,204
Dec. 26, 1936.....	36,152	25,016

Cumulative Totals for Canada:		
Jan. 1, 1938.....	2,627,914	1,367,161
Dec. 26, 1936.....	2,478,400	1,237,784
Dec. 28, 1935.....	2,351,393	1,112,592

George A. Cook Named to Mediation Board

George A. Cook, of Illinois, secretary of the National Mediation Board since its creation in June, 1934, has been nominated

by President Roosevelt to be a member of the board for the remainder of the late James W. Carmalt's term which expires February 1, 1939. Mr. Cook has been in mediation work since 1920, having served in turn with National Mediation Board's predecessors—the United States Railroad Labor Board and the United States Board of Mediation—of which latter he was sec-



Harris & Ewing

George A. Cook

retary from December, 1928, until it was supplanted in June, 1934, by the present board. The Senate Committee on Interstate Commerce reported Mr. Cook's nomination favorably on January 11, and he was confirmed the following day.

Mr. Cook was born at Bloomington, Ill., on May 5, 1889, and entered railroad service at that point with the Chicago & Alton (now Alton) in 1906. He remained with that road until 1917 serving at Bloomington successively as clerk, freight house trucker, checker, operating department clerk, timekeeper and chief timekeeper. He also served in the latter capacity at Kansas City before leaving the Alton to go with the Chicago Great Western as a traveling accountant. He remained in that position until May, 1920, when he became associated with the United States Railroad Labor Board at Chicago as a wage schedule expert. Later he became an examiner for that board's train and engine service bureau.

Mr. Cook went to Washington, D. C., in June, 1926, as chief of the U. S. Board of Mediation's technical division. In December of that year he was promoted to mediator, a position which he held until December, 1928, when he became secretary. When the National Mediation Board supplanted the U. S. Board of Mediation in June, 1934, Mr. Cook was appointed secretary of the former, which position he has since held.

Wallace Allots Road Funds: Asks Governors to Defer Action

Secretary of Agriculture Wallace on December 31 apportioned to the various states \$121,875,000 of regular federal aid for the improvement of the federal-aid highway

system, \$24,375,000 for the improvement of secondary or farm-to-market roads, and \$48,750,000 for the elimination of hazards at grade crossings. In making the allotments for the fiscal year 1939, the Secretary addressed a letter to the Governor of each state requesting that no projects be submitted for his approval under these allotments until the Congress has had time to consider further the request of the President that the authorizations for 1939 be cancelled. The states are required to match the funds for the improvement of the federal-aid system and for the secondary roads, but they do not have to match the grade crossing funds. The Federal Highway Act requires that the allotments be made prior to January 1 of each year. The amounts apportioned for grade crossing work are shown in the accompanying table.

Apportionment of Grade Crossing Funds for the Fiscal Year 1939

Alabama	\$986,449
Arizona	315,619
Arkansas	865,366
California	1,825,553
Colorado	632,565
Connecticut	417,706
Delaware	243,750
Florida	692,981
Georgia	1,194,288
Idaho	404,755
Illinois	2,579,163
Indiana	1,270,383
Iowa	1,362,859
Kansas	1,271,424
Kentucky	894,871
Louisiana	777,845
Maine	338,735
Maryland	506,840
Massachusetts	1,021,971
Michigan	1,620,378
Minnesota	1,313,891
Mississippi	777,444
Missouri	1,496,333
Montana	653,267
Nebraska	871,434
Nevada	243,750
New Hampshire	243,750
New Jersey	972,568
New Mexico	419,200
New York	3,345,530
North Carolina	1,242,912
North Dakota	776,153
Ohio	2,087,464
Oklahoma	1,125,334
Oregon	565,844
Pennsylvania	2,826,864
Rhode Island	243,750
South Carolina	736,174
South Dakota	674,361
Tennessee	933,280
Texas	2,674,043
Utah	321,103
Vermont	243,750
Virginia	935,084
Washington	750,582
West Virginia	652,386
Wisconsin	1,220,638
Wyoming	331,769
District of Columbia	243,750
Hawaii	243,750
Puerto Rico	360,341
Total	\$48,750,000

Pennsy to Open Harrisburg Electrification on Jan. 15

The Pennsylvania will inaugurate electrified passenger train service between Philadelphia, Pa., and Harrisburg on January 15. The change to electric power will take immediate effect on the through east and west and other principal trains operating over this section of the railroad, and will be applied to all other passenger trains in the newly-electrified zone by the end of January. So far as the passenger service is concerned, this step will bring to completion the program of electrifying the railroad's seaboard lines, initiated in the early months of 1929 and embracing all main and suburban trackage between the New York, Philadelphia, Wilmington,

Del., Baltimore, Md., and Washington, D. C., districts, and from Philadelphia to the Harrisburg area. More work remains to be done before the full electric freight service can be set in operation.

Four N. Y. Central Roads Announce Safety Record

The New York Central, the Michigan Central, the Pittsburgh & Lake Erie and the Boston & Albany together have announced the achievement of "a new world record" for safety in passenger transportation. F. E. Williamson, president of the New York Central system and of these constituent companies, reported that the roads have been operated for 14 consecutive years without incurring a passenger fatality in a train accident. During this period the roads operated a total of 43,472,290,150 passenger-miles (estimated for November and December).

Coal Board Hearing on Railroad Fuel Prices

A board of five trial examiners of the National Bituminous Coal Commission in a public hearing on January 10 denied a motion by the Association of American Railroads and the American Short Line Railroad Association that established minimum prices on railroad fuel coals be suspended, and continued the hearing until January 17 to enable commission counsel to furnish a composite statement of the data upon which the prices were determined. Simultaneously a number of Illinois bituminous coal producers filed intervening petitions, requesting the right to be heard during the proceedings.

The railroads' request for suspension of minimum prices on locomotive fuel coal was the second effort of the carriers to void the National Bituminous Coal Commission's action in regard to railroad fuel, and the second time the motion had been denied. The first occasion was on December 14, 1937, when the A.A.R. and the Short Line Association appeared before the commission immediately prior to the establishment of prices for the eastern producing districts.

At the outset of the January 10 hearing J. Carter Fort, A.A.R. general solicitor, asked that all data upon which the commission determined minimum prices for railroad fuel coal be made available upon the record. Robert W. Knox, general counsel of the commission, opposed this motion on the ground that confidential information that had been furnished by coal producers might be disclosed. Instead, counsel for the commission said that a composite statement could be furnished and that this could be made ready in a week. In order to permit the preparation and submission of this information, the board of trial examiners granted a motion of General Counsel Knox that the hearing be continued.

Immediately following Mr. Fort's motion for information from the commission, General Counsel Knox asked the examiners to direct the railroads also to make certain data available, including information concerning their purchases of locomotive fuel, the prices paid during the last year, their supplies on hand now and im-

mediately before minimum prices became effective and other statistics of a like nature. Judge Will H. Pelphrey, presiding examiner, denied Mr. Knox's motion, holding that the carriers, being consumers, could not be compelled to furnish the information without their consent.

The railroads presented their petition through the Consumers' Counsel. Allan Coe, attorney for Consumers' Counsel, announced at the hearing that it was the desire of Consumers' Counsel to join with the railroads in their motion for information as to the bases for the determination of prices.

Green and Eastman on the Motor Hours-of-Service Report

The motor carrier hours-of-service regulations prescribed by Division 5 of the Interstate Commerce Commission, were the subject of an interchange of letters last week between William Green, president of the American Federation of Labor and Commissioner Joseph B. Eastman. These regulations, as pointed out in the *Railway Age* of January 8, sanction the sleeper cab and fix flexible hours-of-service rules, providing as maxima a 60-hour week or not more than 70 hours in any eight consecutive days, with limits of 15 hours "on duty" and 12 hours "at work" in any period of 24 consecutive hours.

It seemed to Mr. Green "needless" to comment upon "the patent unreasonableness" of a 15-hour day so he went on to say that he was informed that "this regulation was put into effect over the protest of every representative of organized labor appearing before the commission." That these protests "could have been ignored" and "such long hours" prescribed at a time of "rapidly rising unemployment" is called "a startling and unexpected occurrence"—an action that "will leave an indelible blot on the otherwise notable record established by the I.C.C. of economic statesmanship and social vision in dealing with our transportation problem." Mr. Green closed with an expression of his "earnest hope that the entire matter be thoroughly reconsidered and the whole case will be reopened for the purpose of drastically revising these regulations.

Commissioner Eastman regretted that Mr. Green had "so poor an opinion" of Division 5's decision, which, the commissioner pointed out, is subject to appeal to the whole commission by the labor organizations which were parties to the proceeding. Mr. Eastman prefaced the foregoing with a reminder that, as the report points out, the regulations "are to be regarded as a first step and are to be followed by further investigations which may furnish a basis for amendments." He added that the rules are based solely on safety considerations, and the matter of unemployment did not enter in. Also, the commissioner thinks, that the present state of the trucking industry is such that "more drastic regulations would reduce, rather than add to, employment."

Mr. Eastman continued to point out how the labor representatives withdrew their objections to the 60-hour week, provided it were regarded as an initial step, pending results of the proposed study of the ef-

fects of fatigue on drivers. He added, however, that labor representatives "did not so modify their protests" with respect to the maximum daily limits. In the latter connection Mr. Eastman called Mr. Green's attention to, but did not "over-emphasize" the fact which "merits attention", that "the similar maximum limits prescribed by law for railroad employees are less favorable." Mr. Eastman closed with the above-mentioned reference to the fact that the order is appealable, in which connection he saw "ample opportunity," before the July 1 effective date of the regulations, for the presentation of the necessary petition.

I.C.C. Asks \$50,000 For Cost Study

The Interstate Commerce Commission's recently-launched study of the cost of transportation will itself cost an estimated \$50,000, according to information revealed when hitherto unpublished testimony of commission officials before the House Appropriations subcommittee was made public last week. The study will be under the direction of Chairman Splawn.

Commissioner McManamy, in testifying before the House Appropriations subcommittee, said, regarding the \$50,000 appropriation: "The purpose of that request and the use of the money is to make a cost study showing in detail the cost of conducting transportation and of handling traffic, including a total cost of overhead and whatever may be involved in that. It is believed that in connection with the co-ordination of the work between motor carriers and the railroads, such a cost study will be very helpful. The commissioner in charge of that work has made a plan for conducting such a study beginning as soon as the appropriation is made available. Commissioner Splawn handles that work. A general investigation into that question has been started by the commission which will be conducted as best we can without this appropriation, if we do not get it, but we think we ought to have it in order to make the study complete and of value."

The subcommittee hearings also revealed that the Bureau of Motor Carriers of the commission is far behind in its work and will continue to get more so if it does not receive an adequate appropriation for the fiscal year 1939. Commissioner Rogers, who is a member of Division 5, read a lengthy statement into the record in which he sought to justify the allotment of \$3,500,000 for the Bureau for 1939 as against an appropriation of \$2,450,000 for the fiscal year 1938. Mr. Rogers, in discussing the work of the Bureau's section of certificate and insurance, pointed out the fact that the total number of applications for certificates and permits now on file is approximately 89,000. This number, he said, is increasing constantly because new applications are being filed at the rate of about 400 each month. Regarding the disposition of these applications, Commissioner Rogers said: "the applications are being heard formally at the rate of about 250 per month. At this rate, considering the number already filed, we are 25 months behind schedule. Within these 25 months there will probably be 10,000 additional

applications filed, which will leave us 3 years and 4 months behind schedule. As may readily be seen, this deficiency presents a very serious situation which cannot be corrected except by increased personnel."

Commissioner Rogers also told the subcommittee that the Bureau's section of complaints was behind in its work and could not possibly hope to keep abreast of its cases unless it gets an increased personnel. The same condition prevails in the section of finance, where, he said, the ratio of formal cases received to those disposed of is about three to one. In the law and enforcement section there are, according to Mr. Rogers, more than 3,500 complaints alleging violations of the act of which the section has been unable to make any sort of investigation. These complaints are now being received at the rate of 127 a week. Also he pointed out that the work in the traffic section is hopelessly behind due to the large number of tariffs that are being filed and the inquiries that come in from truckers. Mr. Rogers told the committee that unless the Bureau is given funds to enforce rate violations, the whole scheme of regulation will break down due to the fact that there are many so-called "chiselers" who are flaunting the commission since they know that the commission does not have adequate personnel to enforce the law. Commissioner Rogers revealed that out of approximately 100,000 applications received by the Bureau, there have been only about 2,000 certificates issued or about two or three per cent. He also estimated that out of the 100,000 applications, some 10,000 or more will have to go to hearing in order to determine the issues involved.

The Bureau has also asked for \$2,000 which will be used to purchase tickets to be used as evidence against fly-by-night travel agencies which advertise arrangements for motor transportation at less than the filed tariff certificated lines.

The House, on January 11, passed the Independent Offices Bill which carried an appropriation for the Interstate Commerce Commission as reported in last week's issue.

Jones Again Hits C. & O.

Further criticism of the Chesapeake & Ohio's refusal to assist the Erie with a loan of collateral for a Reconstruction Finance Corporation loan was voiced by R.F.C. Chairman Jesse H. Jones at a press conference last week. As Mr. Jones appraised the situation it was a "matter of principle"—if the C. & O. "is unwilling to nurture its own child" he didn't see why the government should.

He was "not prepared to say" that the R.F.C. would not make the loan on the Erie's own collateral if the latter were an "independent road," but he thinks that under existing circumstances, "a fair proposition" was offered. Mr. Jones did not blame the C. & O. for wanting to conserve its cash, but he was at loss to understand its disposition to "refuse this baby a milk bottle." The only way the R.F.C. chairman could interpret the C. & O. attitude was on the basis of an assumption that the latter wanted to see the Erie go through

reorganization and come out with smaller fixed charges, but still under C. & O. control.

In response to a question Mr. Jones said he did not know what could be done about the C. & O.'s control of Erie, adding that a parent not able to support a child should not have it. He went on to observe that the C. & O. "has shown no interest" in the Erie's plight—the only word the R.F.C. has received from the former has been the adverse replies to Mr. Jones' wires. Asked why the C. & O. had acquired control of the Erie, Mr. Jones replied that "it looks as though they might want to milk the cow and turn her out when she quits giving milk." This problem he said in response to another question is one for the court—the "juvenile court."

The Erie record, Mr. Jones said, was "not bad." It has earned its charges in the past seven years, and while its capital structure is "not the best" neither is that of "a lot of others." Aside from the Erie, the Baltimore & Ohio and the Boston & Maine the R.F.C. chairman knew of no roads needing R.F.C. help at this time. The loan granted last week to the B. & O., he thinks, will carry that road through to better-traffic times. The B. & M.'s application is pending.

Asked about the delay in reorganization proceedings, Mr. Jones expressed the view that there is "something lacking" in the present set-up. He thinks there ought to be some changes that will enable a railroad reorganization to be completed "within an ordinary lifetime."

The R.F.C. statement as of December 31, 1937, shows that as of the close of last year a total of \$537,126,239 in railroad loans had been disbursed, and repayments aggregated \$181,232,693.

Wheeler Hears Ford Testimony

(Continued from page 161)

Wheeler disclosed that the memorandum of the agreements had been written, but that Mr. Lee had decided that it would be best to destroy the copies and suggested this to Charles F. Taplin. Seemingly, Lawyer Taplin kept the copy of the memorandum in order that he might use it later.

The January 12 session was devoted mainly to a further elaboration of the purchase by the Pennroad Corporation of the control of the Pittsburgh & West Virginia. Frank Taplin and A. J. County were again the chief witnesses. During the hearing Senator Wheeler charged that the late General W. W. Atterbury had used the Pennroad Corporation which, he said, used funds belonging to the public, to advance and protect the interests of the Pennsylvania. Mr. Taplin admitted that General Atterbury dominated the Pennroad Corporation, but urged that he used it to protect the interests of its own stockholders and those of the Pennsylvania. Senator Wheeler also charged that the Pennroad Corporation had used millions of dollars of the public's money to defeat the public policy regarding the consolidation of railroads as laid down by the Interstate Commerce Commission.

Equipment and Supplies

LOCOMOTIVES

THE CHICAGO & EASTERN ILLINOIS has ordered three 600 hp. Diesel-electric switching locomotives, placing two with the Electro-Motive Corporation and one with the American Locomotive Company.

FREIGHT CARS

THE CENTRAL OF BRAZIL contemplates buying 100 or more freight cars of about 50 tons' capacity. Coronel Joao Mendonca Lima is general manager at Praça da Republica, Rio de Janeiro, Brazil.

THE ROYAL STATE RAILWAYS OF SIAM will receive bids at the office of the superintendent of stores, Bangkok, Siam, up to 14:00 o'clock on March 14, for bogies and underframes of 20 carriages. Tender forms and specifications may be purchased from Messrs. Sandberg, 25 Broadway, New York City.

IRON AND STEEL

THE PERE MARQUETTE has ordered 3,550 tons of rails, placing 1,700 tons with the United States Steel Corporation, 1,350 tons with the Inland Steel Company and 500 tons with the Bethlehem Steel Company.

THE CHESAPEAKE & OHIO, reported in the *Railway Age* of January 8 as having ordered 27,500 tons of rails, has placed 14,700 tons with the United States Steel Corporation, 9,600 tons with the Inland Steel Company and 3,200 tons with the Bethlehem Steel Company.

SIGNALING

THE BOARD OF PUBLIC SERVICE for the city of St. Louis, Mo., has awarded a contract to the General Railway Signal Company for certain items of interlocking and signal equipment to be installed on the railroad deck of the St. Louis Municipal bridge across the Mississippi river and the approaches thereto. The contract price was \$70,000. The board rejected all bids received on November 26 on other items of the interlocking and signal equipment estimated to cost about \$150,000.

THE CHICAGO, AURORA & ELGIN has placed an order with the Union Switch & Signal Co., for the necessary materials to extend the double track alternating current automatic block signaling now in service between Des Plaines river and Villa Park, Ill., from Villa Park to Wheaton, a distance of seven miles; and to provide APB signaling on the 4½ miles of single track between Gary siding and Diehl road on the Aurora-Wheaton line. Color light signals are being used. The field installation work is to be carried out by the railway company's forces.

Supply Trade

The Bucyrus-Erie Company, South Milwaukee, Wis., has moved its San Francisco, Cal., office from 989 Folsom street to 390 Bayshore boulevard.

R. J. Van Meter, assistant to the vice-president of the Superheater Company, with headquarters at Chicago, has also been placed in charge of sales and service for the western territories.

Walter L. Woody, manager of the Cleveland works of the National Malleable and Steel Castings Co., Cleveland, Ohio, has been appointed manager of the Sharon, Pa. works.

Edward F. Callahan, general manager of apparatus sales of the International General Electric Company, with headquarters at New York, has been elected a vice-president.

Earle A. Mann, district sales manager of the Standard Brake Shoe & Foundry Company, Pine Bluff, Ark., with headquarters at Chicago, has been promoted to director of sales, with headquarters at Pine Bluff, Ark.

Stuart M. Crocker, vice-president of the International General Electric Company since 1930, has been appointed to the additional responsibilities of assistant to Charles E. Wilson, the new executive vice-president of the General Electric Company.

Norman B. Johnson, assistant chief engineer of the Pullman-Standard Car Manufacturing Company, Chicago, has been appointed manager of freight shops, with temporary headquarters at the Pullman Car Works. He will have general jurisdiction over all freight plant production activities.

Carl H. Beck, eastern manager of the Westinghouse Air Brake Company, has been promoted to general sales manager,



Carl H. Beck

with headquarters at the general office, Wilmerding, Pa. Mr. Beck was graduated from the Pennsylvania State College in

1905, as a bachelor of science, and six years later received his mechanical engineer's degree from the same college. A few weeks after graduation he entered the employ of the Westinghouse Air Brake Company as a special apprentice and served on a number of shop and field assignments until 1907, when he was appointed steam road inspector at the St. Louis, Mo., office. In 1909 he was advanced to representative for the Westinghouse Traction Brake Company in St. Louis, a position he held until 1919 when he was appointed special representative of the Safety Car Devices Company at Wilmerding. Mr. Beck's next promotion came the following year when he was appointed assistant eastern manager of the Westinghouse Air Brake Company. In 1932 he was given full responsibility of the eastern district as manager, which position he held until his recent promotion, effective January 1.

A. E. Biddle, whose election as executive vice-president of the Cardwell Westinghouse Company, Chicago, was an-



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A. E. Biddle

nounced in the *Railway Age* of January 1, was born on April 27, 1893, at Chicago, and completed his high school education at that point. He first became identified with the railroad supply field in 1909, when he entered the engineering department of W. H. Miner, Inc., Chicago. While he was serving with this company, Mr. Biddle took an evening course in mechanical engineering at the Armour Institute of Technology. After spending 10 years in the engineering department of W. H. Miner, Inc., he was transferred to the sales department, where he served for another 10 years, his service with this company being interrupted only during the World War when he served 16 months with the United States Army, 11 months of which were spent overseas. In November, 1930, Mr. Biddle was elected executive vice-president of the Universal Draft Gear Attachment Company, being elected president and a director of this company in February, 1932. In June of the same year he was elected also vice-president and a director of the Allied Steel Castings Company, and in January, 1934, he was elected also vice-president of the Canadian Cardwell Company. In February, 1935, he became vice-president of the Cardwell

Westinghouse Company, this position being also in addition to those mentioned previously. In his new capacity as executive vice-president of the Cardwell Westinghouse Company, Mr. Biddle retains his connection with the Universal Draft Gear Attachment Company, the Allied Steel Castings Company and the Canadian Cardwell Company.

J. M. Hall, who has been elected vice-president of the **Cardwell Westinghouse Company**, Chicago, as reported in the *Railway Age* of January 1, was born on February 25, 1887, at Howard, S. D., and was educated in electrical engineering at South Dakota State college. Mr. Hall first became associated with the railroad



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J. M. Hall

field as a draftsman on the Chicago & Alton (now the Alton). In 1909, he entered the employ of W. W. Cook & Son, contractors. In 1911 he returned to the Alton as chief draftsman, and in 1914 he became identified with the Babcock & Wilcox Company as chief draftsman, leaving this company two years later to become superintendent of the Hamilton Steel Wheel Company, Hamilton, Ont. In 1918, Mr. Hall became associated with Dominion Foundries & Steel, Ltd., Hamilton, as general superintendent. In 1923, he became vice-president of the Hall Draft Gear Corporation, Watervliet, N. Y., and three years later he became assistant to the president of the Universal Draft Gear Attachment Company. In 1928, he joined the Cardwell Westinghouse Company as chief engineer, which position he continued to hold until his recent election as vice-president.

Correction

Thomas J. Hilliard who has been appointed general manager of sales of the Carnegie-Illinois Steel Corporation will have his headquarters at Pittsburgh, Pa., instead of at Chicago as was reported in the *Railway Age* of January 8, page 137.

OBITUARY

B. J. Morrison, for many years chief engineer of the Coale Muffler & Safety Valve Co., Baltimore, Md., died suddenly on January 2, at his home in Baltimore.

Financial

ATCHISON, TOPEKA & SANTA FE.—Equipment Trust Certificates.—The Interstate Commerce Commission, Division 4, has authorized this company to assume liability for \$3,900,000 of 2¼ per cent equipment trust certificates, maturing in 10 equal annual installments of \$390,000 on December 15, in each of the years from 1938 to 1947. The issue has been sold at \$101.5719 to Evans, Stillman & Co. of New York City, making the average annual interest cost to the company approximately 1.95 per cent.

BALTIMORE & OHIO.—R. F. C. Loan.—The Interstate Commerce Commission, Division 4, has conditionally approved a loan to this company by the Reconstruction Finance Corporation in the sum of \$8,233,000. Commissioner Mahaffie again dissented as he did in the recent case where the commission approved an R. F. C. loan to the Erie.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—Reorganization.—A committee of institutional investors headed by Frederick W. Walker, vice-president of the Northwestern Mutual Life Insurance Company, have filed a new plan of reorganization for this company. The plan proposes to cut the total capital liabilities of the system from \$849,876,000 to \$640,687,000, or a reduction of 24.6 per cent. The total fixed and contingent charges of the new company would be \$14,719,000, as compared with about \$24,855,000 at present. The committee reaches the conclusion that the common and preferred stock is of no value and should be wiped out.

CHICAGO, ROCK ISLAND & PACIFIC.—Abandonment.—Trustees of this road have applied to the Interstate Commerce Commission for authority to abandon that section of the Fairbury-Nelson branch, extending from Ruskin, Nebr., to Nelson, 12 miles.

MINNEAPOLIS & ST. LOUIS.—Dismemberment.—Oral argument on the proposal of Associated Railways to acquire the properties of this road will be held before the Interstate Commerce Commission on February 4 at Washington, D. C.

MINNEAPOLIS & ST. LOUIS.—Abandonment.—The Interstate Commerce Commission, Division 4, has denied the application of the co-receivers to abandon a portion of a branch line extending from Laurel, Iowa, to Van Cleve and has dismissed the application to abandon that part of the same branch line extending from Newburg, Iowa, to Laurel, a total of 16.1 miles. Commissioner Mahaffie dissented from the majority opinion.

MISSOURI PACIFIC.—Reorganization.—The Interstate Commerce Commission, Division 4, has denied the petition of the independent bondholders committee, headed by Charles A. Beard, for authority to intervene in the reorganization proceedings of this company.

NEW YORK CENTRAL.—Abandonment.—This road has applied to the Interstate Commerce Commission for authority to abandon its 12.3-mile line from Wellsboro, Pa., to Antrim.

NEW YORK, NEW HAVEN & HARTFORD.—Reorganization.—The Hartford & Connecticut Western has filed a plan of reorganization in the reorganization proceedings of this company.

Reorganization.—The Interstate Commerce Commission, Division 4, has authorized Oscar Lasdon, et al., as owners of bonds of the Housatonic, to intervene in the reorganization proceedings of this company.

Reorganization.—The Interstate Commerce Commission, Division 4, has authorized the Protective Committee for Holders of Preferred Stock to intervene in the reorganization proceedings of this company.

Reorganization.—Examiner Harvey H. Wilkinson of the Interstate Commerce Commission, in a proposed report to the commission, has recommended that it find that the trustees' method of segregation and allocation of the debtor's revenues and expenses between and to its various mortgaged lines is as fair and equitable as the circumstances will permit.

NEW YORK, SUSQUEHANNA & WESTERN.—Reorganization.—The Interstate Commerce Commission, Division 4, has vacated its order of September 17, 1937, in which it fixed the maximum reasonable compensation of Walter Kidde as trustee in the reorganization proceedings of this company, and has left the question of maximum compensation open so that it may be determined at a later date.

PITTSBURGH, ALLEGHENY & MCKEES ROCKS.—Abandonment.—This road has applied to the Interstate Commerce Commission for authority to abandon 15,700 ft. of sidings and 2,700 ft. of line located at Pittsburgh Northside, Pa.

ST. PAUL BRIDGE & TERMINAL.—Acquisition.—The Interstate Commerce Commission, Division 4, has authorized this company to acquire the railroad properties of the St. Paul Union Stockyards Company.

SOUTHEASTERN GREYHOUND LINES.—Stock.—Examiner William L. Fulton of the Section of Finance of the Bureau of Motor Carriers of the Interstate Commerce Commission, in a proposed report to the commission, has recommended that it deny the application of this company for authority to issue \$2,939,690 of capital stock, in liquidation of present indebtedness and to provide additional working capital. The examiner has found that the company does not have sufficient capitalizable assets to support the proposed issue.

SOUTHERN.—Abandonment.—Examiner W. J. Schutrumpf of the Interstate Commerce Commission, in a proposed report to the commission, has recommended that it authorize this company to abandon that part of its Atlanta-Fort Valley line extending from a point about 1.5 miles south of Roseland, Ga., to Williamson, 40.1 miles.

WABASH.—Principal payment.—The dis-

strict court at St. Louis, Mo., on January 11 entered an order authorizing receivers of the Wabash to defer until further notice payment of the installment of principal due January 15, 1938, on the director general's equipment trust certificates. However, interest due on this date will be paid according to the court order. The court also instructed receivers to negotiate agreements with holders of equipment trust certificates of 1929 series H and 1927 series G for a deferment of the principal amounts due February 1 and April 1, 1938, respectively, for a period to be mutually agreed upon, providing that during such period receivers continue to pay currently the interest due thereon.

Average Prices of Stocks and Bonds

	Jan. 11	Last week	Last year
Average price of 20 representative railway stocks..	32.81	30.38	55.12
Average price of 20 representative railway bonds..	65.92	65.62	85.31

Dividends Declared

Cleveland, Cincinnati, Chicago & St. Louis.—\$5.00, semi-annually; Preferred, \$1.25, quarterly, both payable January 31 to holders of record January 21.

Louisville Henderson & St. Louis.—Common, \$4.00, semi-annually; 5 Per Cent Preferred, \$2.50, semi-annually, both payable February 15 to holders of record February 1.

Michigan Central.—\$25.00, semi-annually, payable January 31 to holders of record January 21.

Northern Railroad.—\$1.50, quarterly, payable January 31 to holders of record January 10.

Virginian.—\$2.00, payable January 28 to holders of record January 17.

Wheeling & Lake Erie. — Prior Lien, \$1.00, quarterly; 5½ Per Cent Preferred, \$1.37½, quarterly, both payable February 1 to holders of record January 25.

Construction

ATLANTIC COAST LINE.—The Interstate Commerce Commission, Division 4, has extended from January 1, and March 31, 1938, to January 1, and March 31, 1939, the times within which this company shall commence and complete the construction of an extension of its railroad in Columbus County, N. C.

KANSAS CITY TERMINAL.—The Interstate Commerce Commission, Division 4, has extended from December 31, 1937, to June 30, 1938, the time within which this company shall complete the construction of a line in Jackson County, Mo.

LONG ISLAND.—The New York Public Service Commission has ordered the removal of two grade crossings of this road at Columbia street and at Jackson street, Hempstead, Long Island, N. Y.

MISSOURI PACIFIC.—Plans have been prepared for improvements to 9 of the 12 engine stalls in this company's roundhouse at 14th and Pinkney streets, Omaha, Neb. Each stall will be extended 20 ft. Three mechanical draft units and new heating equipment will be installed at a cost of approximately \$45,000.

Railway Officers

EXECUTIVE

Tomlinson Becomes President of Alleghany Corp.

George A. Tomlinson has been elected president of the Alleghany Corporation, one of the top holding companies set up by the Van Sweringens, to succeed Charles L. Bradley. He has also been elected a director of this corporation. Mr. Tomlinson, a Great Lakes ship operator, first became actively associated with the railroad field about two years ago when he joined with George A. Ball in the purchase of control of the Alleghany Corporation at a foreclosure sale. He is now also chairman of the board of the Missouri Pacific and of the Gulf Coast Lines.

Clarence Bernard Neubauer, whose appointment as assistant to vice-president of the Southern system, in charge of materials and supplies, was reported in the *Railway Age* of January 1, was born on April 3, 1897, at Cincinnati, Ohio. Mr. Neubauer was educated in private schools and Xavier University, Cincinnati, and entered railroad service on August 9, 1917, with the Cincinnati, New Orleans & Texas Pacific. He served as clerk from August, 1917, to August, 1919; chief clerk from September, 1919, to June, 1928, and disbursement accountant from July, 1928, to May, 1929, all with headquarters at Cincinnati. In June, 1929, Mr. Neubauer was appointed auditor at Cincinnati and was transferred in the same capacity to Washington in July, 1932, the position he held until his recent appointment as assistant to vice-president, with headquarters at Washington, D. C., effective January 1.

FINANCIAL, LEGAL AND ACCOUNTING

E. W. Coughlin, district manager, Car Service division, Association of American Railroads with headquarters at St. Louis, Mo., has been promoted to secretary of that division, with headquarters at Washington, D. C., as reported in the *Railway Age* of December 25. Mr. Coughlin was born at Richmond, Mo., on December 21, 1892, and entered railroad service in 1910 in the bridge and building department of the Rock Island. He served on that line and the Missouri-Kansas-Texas in various positions in the freight claim department and as yardmaster, secretary to various operating officers, roundhouse foreman, division and district car distributor and transportation inspector. After an interval away from the railroad work, he entered the service of the Car Service division, serving at Toledo, New York and Washington, D. C. Mr. Coughlin was promoted to district manager at St. Louis in 1928, the position he held until his recent appointment.

Paul C. Garrott, acting general claim agent of the Baltimore & Ohio at Balti-

more, Md., has been appointed general claim agent, succeeding **Charles C. Peery**, retired, as reported in the *Railway Age* of January 8. Mr. Garrott was born on October 1, 1896, near Weverton, Md., and was educated in the public schools and Brunswick, Md., high school. He entered the service of the Baltimore & Ohio on June 4, 1912, as truckman for the Bruns-



Paul C. Garrott

wick transfer, resigning two months later, but returning to the same position on June 6, 1913. In September, 1915, he became a stenographer in the office of the assistant superintendent at Brunswick, and on November 16, 1916, was appointed a claim investigator. He became claim agent at Martinsburg, W. Va., on May 16, 1918, division claim agent at Hagerstown, Md., on March 16, 1919, and was transferred to Rockwood, Pa., in the same capacity on March 1, 1920. Mr. Garrott was transferred as division claim agent to Cumberland, Md., on April 1, 1921, and on October 1, 1930, was advanced to assistant general claim agent at Baltimore, later becoming acting general claim agent.

Mr. Peery was born in Bartonville, Va., on February 20, 1870, and was educated in the public schools. He entered the service of the Baltimore & Ohio on September 1, 1893, as secretary to special agent, becoming chief clerk to special agent on June 1, 1899. In 1900, Mr. Peery was appointed chief clerk to claim agent, being advanced to assistant general claim agent at Baltimore on January 1, 1912, the position he held until September, 1930, when he was appointed general claim agent at Baltimore. For many years he also served on the topics and grade crossing committees of the Association of Railway Claim Agents.

OPERATING

D. Handy, Chief dispatcher on the Texas & Pacific at Ft. Worth, Tex., has been promoted to trainmaster, with headquarters at Alexandria, La., effective January 10.

Rex E. Hallawell, assistant chief clerk to the operating vice-president and general manager of the Southern Pacific, has been appointed assistant superintendent of the Western division in charge of the company's eastbay electric lines, with headquarters at Oakland, Cal. Mr. Hallawell

succeeds **C. A. Veale**, who has been transferred to the executive department.

The Lehigh and Wyoming divisions of the Lehigh Valley have been combined into one division to be known as the Lehigh-Wyoming division. **F. S. Mitten**, division superintendent at Wilkes-Barre, Pa., has been appointed superintendent of the new division, with headquarters at Easton, Pa., and **R. L. Gebhardt**, division superintendent at Easton, has been appointed assistant superintendent, with headquarters at Wilkes-Barre.

TRAFFIC

W. E. Nicholson, commercial agent on the Chicago, Burlington & Quincy at Sioux City, Iowa, has been appointed general agent with the same headquarters, to succeed **P. J. Donohue**, who is retiring after 46 years service with this company.

S. G. Nethercot, general freight agent, rates-tariffs, of the Chicago & North Western, with headquarters at Chicago, has had his title changed to assistant freight traffic manager in charge of rates and tariffs, effective January 1.

H. C. James, district passenger agent, Canadian Pacific, with headquarters at St. John, N. B., has been appointed assistant general passenger agent at Montreal, Que., effective February 1. **C. E. Cameron**, traveling passenger agent at Toronto, Ont., has been appointed district passenger agent at St. John, to succeed Mr. James.

R. M. Hutchison, who has been connected with the office of the freight traffic manager of the Missouri Pacific Lines at St. Louis, Mo., has been appointed general agent, with headquarters at Havana, Cuba, to succeed **G. A. Rodriguez**, who has been appointed foreign freight agent at St. Louis.

M. B. Hutchins, assistant to the vice-president in charge of traffic of the Chicago & North Western, with headquarters at Chicago, has had his title changed to assistant general freight agent and **J. E. Flansburg**, also assistant to the vice-president in charge of traffic, has had his title changed to general commerce agent.

W. B. Futral, division freight agent on the Chicago, Rock Island & Pacific at Amarillo, Tex., has been appointed assistant general freight agent with headquarters at Oklahoma City, Okla., succeeding **P. Portel**, who has been appointed commercial agent with the same headquarters. **A. E. Blair**, traveling freight agent at Denver, Colo., has been promoted to general agent with headquarters at Cincinnati, Ohio, to succeed **E. W. Merriman**, who has been appointed to the newly-created position of assistant general agent at Denver.

W. H. Billings, general agent of the New York, Ontario & Western, with headquarters at Pittsburgh, Pa., has been appointed assistant general freight agent, with headquarters at Detroit, Mich. He was born in Milwaukee, Wis., on April 17, 1896, and entered the service of the Michigan Central at Chicago, Ill., as rate

clerk. In 1922 he became associated with the New York, Ontario & Western as its traffic representative in Chicago. In 1927



W. H. Billings

Mr. Billings was promoted to general agent at St. Louis, Mo., and in 1932 was transferred to Cleveland, Ohio, in the same capacity. In 1933 he was again transferred in the same position to Pittsburgh, where he remained until his recent appointment as assistant general freight agent at Detroit, effective January 15.

Gerald E. Gustafson, general western freight agent of the New York, Ontario & Western, with headquarters at Chicago, Ill., has been appointed western traffic manager, with the same headquarters. Mr. Gustafson was born on October 1, 1896, at Chicago, and entered the service of the Michigan Central on February 16, 1914, in the freight traffic department at Chicago. He was advanced through various positions in this department until April 15, 1920, when he left the Michigan Central to become traveling freight agent of the New York, Ontario & Western at Chicago. On June 15, 1922, he became commercial agent at Detroit, Mich., and



Gerald E. Gustafson

on February 19, 1923, returned to Chicago as general agent. On April 15, 1937, Mr. Gustafson was promoted to general western freight agent at Chicago, which position he held at the time of his recent appointment as western traffic manager, effective January 15.

Frank G. Maxwell, who has been appointed general freight agent on the Wabash, with headquarters at St. Louis, Mo., was born at Craig, Mo., on July 6, 1891. After a public school, normal school and business college education, Mr. Maxwell entered railway service with the Wabash on September 13, 1906, as a clerk and stenographer in the office of the division storekeeper at Moberly, Mo. In the following year he was transferred to the division freight and passenger office, with the same headquarters, where he remained until 1909. From the latter year until 1913, Mr. Maxwell served as secretary to the assistant general freight agent and to the general freight agent at St. Louis, then being appointed secretary to the general traffic manager at the same point. In 1916, he was appointed assistant chief clerk to the general traffic manager, holding this position until February, 1918, when he joined the United States Army, serving in France with the railway engineers. At the close of the war he returned to the Wabash as



Frank G. Maxwell

chief clerk in the general traffic department at St. Louis, being advanced to the position of assistant to the vice-president in charge of traffic, in 1923. Five years later he was appointed assistant general freight agent, solicitation, and in 1937 he was placed in charge of the St. Louis agency with the same title. He was holding the latter position at the time of his recent appointment as general freight agent.

R. N. Golden, General freight agent of the Minneapolis, St. Paul & Sault Ste. Marie, who has been appointed to the newly-created position of assistant freight traffic manager in charge of solicitation, with headquarters as before at Minneapolis, Minn., as reported in the *Railway Age* of January 8, was born on June 21, 1878, at Diamond Lake, Ill. Mr. Golden entered railway service in 1896 with the Chicago & North Western, with which road he was connected until 1914. In that year he entered the employ of the Minneapolis & St. Louis, where he remained for four years. In January, 1918, Mr. Golden went with the United States Railroad Administration, and from March to September of the same year he served with the United States Shipping Board. At the end of this period he became connected with the United States Army Reserve De-

pot at Columbus, Ohio, and in 1919, he became western manager of the Continental Shipping Company. From 1920 to 1928, Mr. Golden held the positions of assistant



R. N. Golden

general freight agent and general freight agent of the M. & St. L., leaving this company in the latter year to go with the Soo Line as general freight agent at Minneapolis.

ENGINEERING AND SIGNALING

H. T. Hazen, regional chief engineer of the Atlantic region of the Canadian National, with headquarters at Moncton, N. B., has retired, effective December 31. **F. O. Condon**, office engineer, has been appointed acting regional chief engineer, effective January 1.

MECHANICAL

F. K. Murphy, assistant superintendent of equipment of the New York Central System at Indianapolis, Ind., has been promoted to superintendent of equipment, with the same headquarters, to succeed **D. J. Mullen**, who retired on December 31 after 55 years service with this company. **F. K. Mitchell**, master mechanic at Indianapolis, has been promoted to assistant superintendent of equipment, with the same headquarters, to succeed Mr. Murphy, and **J. J. Mellen** has been appointed master mechanic at Indianapolis to replace Mr. Mitchell.

Mr. Mullen was born on December 14, 1867, at Cincinnati, Ohio, and completed his education at Ohio Mechanical Institute. He entered railway service on November 17, 1882, as a machinist apprentice on the Cleveland, Cincinnati, Chicago & St. Louis (part of the New York Central System). Subsequently he was made a machinist and later served successively as gang foreman, roundhouse foreman at Cincinnati, and general foreman at Brightwood, Ind. In 1904, he was appointed master mechanic at Mt. Carmel, Ill., and in November, 1912, he was transferred to Mattoon, Ill. Two years later Mr. Mullen was promoted to assistant superintendent of motive power, and in March, 1914, he became superintendent motive power at Indianapolis. He has held the position of superintendent of equipment since 1934.

PURCHASES AND STORES

E. S. Bonnet, fuel engineer, New York Central, has been appointed fuel purchasing agent, with headquarters at New York, succeeding the late **W. J. Hiner**, general fuel agent.

Neil Butler Coggins, who has been appointed general storekeeper of the Southern system, with headquarters at Washington, D. C., as reported in the *Railway Age* of January 1, was born on August 12, 1895, at Clinton, Tenn. He was educated in the public schools of Knoxville, Tenn., and entered railroad service on March 13, 1913, with the Southern as storehouse laborer at Knoxville, becoming apprentice storekeeper the following month. On April 1, 1917, he became chief clerk to division storekeeper at Sheffield, Ala., being appointed division storekeeper, Alabama Great Southern, December 10, 1917. He served as assistant division storekeeper at Birmingham, Ala., from February 28, 1921, to October 31, 1922, and as division storekeeper at Selma, Ala., from the latter date to September 30, 1931. Mr. Coggins became division storekeeper at Somerset, Ky., on October 1, 1931, the position he held until his recent appointment as general storekeeper.

SPECIAL

Edwin H. Buhlman, until recently general superintendent of the Minneapolis, St. Paul & Sault Ste. Marie, with headquarters at Minneapolis, Minn., has been appointed to the newly-created position of personnel officer of this company, the Duluth, South Shore & Atlantic and the Mineral Range, with the same headquarters, in which capacity he will be in charge of schedule matters.

T. E. Pratt, chief special agent of the Chicago, Burlington & Quincy, with headquarters at Chicago, has retired, effective January 15. A native of Palmyra, Mo., Mr. Pratt was born on January 5, 1868, and first started with the Burlington in 1884 as a water boy, but resigned after several years to enter police work, subsequently becoming sheriff of Marion County, Mo., at the age of 21 years. In 1902, after engaging in various other activities, Mr. Pratt re-entered the service of the Burlington as night watchman in the yards at Hannibal, Mo. After three years in this capacity he was made a special agent, and in August, 1909, he was further promoted to chief special agent, which position he held until his retirement. For several years Mr. Pratt also held the position of superintendent of safety of this company and has also had charge of labor and fire prevention matters. For many years he acted as chairman of the Protection section of the old American Railway Association, and was chairman of the Committee of Direction of that section.

OBITUARY

David Pottinger, former general manager, Intercolonial Railway and Prince Edward Island Railway, (now part of the

Canadian National) and assistant chairman of the Government Railways Managing Board, died at his home in Montreal, Que., on January 5, at the age of 94. Mr. Pottinger retired in 1913.

F. J. Nevins, valuation engineer of the Chicago, Rock Island & Pacific, with headquarters at Chicago, died on January 10 of heart disease.

A. G. Sandman, retired assistant to chief of motive power and equipment of the Baltimore & Ohio, died at his home in Baltimore, Md., on January 9.

Harry B. Stewart, trustee of the Akron, Canton & Youngstown, with headquarters at Akron, Ohio, died on January 12 at the age of 73.

John T. Cochrane, trustee of the Alabama, Tennessee & Northern, and president of the Mississippi railway, with headquarters at Mobile, Ala., died at his home there on January 12, at the age of 64.

J. Kibben Ingalls, president of the North Western Refrigerator Line Company and the Western Refrigerator Line Company, with offices at Chicago, died at the Presbyterian hospital at that point on January 10. A native of Corning, Iowa, Mr. Ingalls was born on December 6, 1870, and was educated at Iowa Wesleyan college and the State University of Iowa. In 1892, he entered the employ of the Chicago, New York & Boston Refrigerator Line and in 1906, he organized the Western Heater Despatch remaining as its president until 1924, when he sold his interest. In the following year he organized the North Western Refrigerator Line Company and in 1929, he started the Western Refrigerator Line Company, remaining as president of both these companies until his death.

Judson G. Fry, general southwestern freight agent of the Baltimore & Ohio at St. Louis, Mo., who died suddenly of heart disease on December 25, as reported in the *Railway Age* of January 1, was born at Bastrop, Tex., on September 3, 1863. Mr. Fry was educated in the San Antonio public schools, and was graduated from Texas A. & M. College. He began his railroad career in the construction department of a railroad then being built between San Antonio, Tex., and El Paso, now a part of the Southern Pacific. Eventually he served successively as a fireman, engineer, operator, agent, and dispatcher, subsequently leaving the service to enter the real estate business. When the San Antonio & Gulf Shore (now part of the Southern Pacific) was built, Mr. Fry was active in the project. Becoming one of this railroad's largest stockholders, he was elected vice-president and general manager, which position he occupied until 1899, when he entered the service of the Baltimore & Ohio as southwestern freight agent at Dallas, Tex. He retained that position until July 1, 1911, when he was sent to Cincinnati, Ohio, as freight agent. He was appointed general southwestern freight agent at St. Louis on March 1, 1920.

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1937

Name of road	Av. mileage operated during period	Operating revenues			Operating expenses			Operating ratio	Net from railway operation	Net railway operating income			
		Freight	Passenger	Total (inc. misc.)	Maintenance of way and structures	Traffic	Trans- portation			Operating income	After depreciation— 1937	Before depreciation— 1936	
Akron, Canton & Youngstown.....Nov.	171	\$132,621	\$38	\$141,767	\$28,602	\$16,307	\$11,631	\$54,605	\$121,781	\$17,584	—\$2,052	\$40,246	\$2,576
Alton.....Nov.	171	1,870,252	501	1,985,843	299,198	199,187	113,207	\$20,661	1,334,319	533,459	299,143	436,081	348,828
Alton.....Nov.	956	923,810	209,918	1,366,834	158,364	213,157	49,006	567,718	1,059,570	183,726	8,844	231,076	39,486
Alton.....Nov.	956	11,440,254	2,210,153	15,509,176	2,190,322	2,417,191	552,853	5,985,798	11,874,286	2,677,355	718,742	492,377	1,046,737
Atchison, Topeka & Santa Fe System.....Nov.	13,536	11,511,333	1,277,325	14,008,011	2,059,040	3,319,416	519,012	5,175,150	11,584,005	1,184,150	1,152,856	2,697,339	2,133,574
Atlanta & West Point.....Nov.	13,508	128,986,268	14,080,091	157,750,363	25,508,298	36,432,688	4,959,784	56,794,830	128,305,545	17,665,487	16,958,748	16,047,904	27,467,337
Atlanta & West Point.....Nov.	93	89,281	24,767	139,622	18,966	30,935	8,889	64,137	135,071	4,551	—4,545	2,494	—10,315
Atlanta & West Point.....Nov.	93	1,112,341	285,039	1,663,332	212,773	346,235	95,579	683,619	1,461,891	114,647	—37,635	—13,501	56,637
Western of Alabama.....Nov.	133	92,726	25,615	136,226	19,729	31,437	7,903	57,364	127,170	—3,638	—2,954	11,210	9,160
Atlanta, Birmingham & Coast.....Nov.	133	1,072,776	281,884	1,557,326	215,500	376,488	85,989	588,909	1,377,417	57,200	85,155	37,220	218,738
Atlanta, Birmingham & Coast.....Nov.	639	2,857,319	180,260	3,391,408	494,818	62,643	25,040	1,141,800	2,655,024	—19,270	—33,498	16,286	—22,687
Atlanta, Birmingham & Coast.....Nov.	639	2,857,319	180,260	3,391,408	55,243	604,398	265,807	1,112,928	3,028,349	124,706	—55,071	44,394	66,867
Atlantic Coast Line.....Nov.	5,100	2,909,369	422,548	3,780,584	366,139	830,990	161,060	1,505,758	3,026,555	404,029	304,043	503,645	470,851
Charleston & Western Carolina.....Nov.	342	217,351	1,048	218,399	4,424,210	8,568,742	1,561,714	16,987,349	33,476,794	6,076,774	4,863,033	3,906,873	6,713,544
Charleston & Western Carolina.....Nov.	342	201,763	1,048	206,510	23,715	39,822	8,515	71,246	149,449	37,061	34,796	42,129	40,989
Charleston & Western Carolina.....Nov.	342	2,257,856	13,336	2,328,498	292,757	390,379	78,998	753,054	1,581,113	515,885	462,544	411,359	530,745
Baltimore & Ohio.....Nov.	6,450	9,977,297	930,754	11,748,715	1,112,454	2,548,426	407,337	5,043,509	9,637,370	1,224,295	898,327	2,968,701	1,509,114
Baltimore & Ohio.....Nov.	6,461	137,406,295	10,836,923	157,712,021	15,975,145	35,039,552	4,547,833	56,281,854	118,945,943	24,206,648	24,206,648	27,571,953	30,844,867
Staten Island Rapid Transit.....Nov.	23	52,832	64,212	126,014	11,217	23,007	1,157	83,211	129,851	—3,837	—33,478	50,256	—46,060
Staten Island Rapid Transit.....Nov.	23	547,645	774,392	1,424,866	138,166	247,612	16,597	909,893	1,438,055	—274,444	—342,110	—410,792	—260,512
Bangor & Aroostook.....Nov.	603	441,060	14,790	473,694	73,301	84,576	5,679	125,095	313,754	111,327	108,878	179,273	130,687
Bangor & Aroostook.....Nov.	603	591,926	207,673	5,625,384	1,001,331	994,079	62,403	1,495,705	3,752,152	1,371,352	1,354,501	1,198,549	1,596,612
Besemer & Lake Erie.....Nov.	225	7,400,898	633	7,408,384	83,131	274,438	11,303	1,794,422	3,785,944	1,873,233	1,623,347	1,612,556	343,568
Besemer & Lake Erie.....Nov.	225	17,118,456	8,649	17,272,971	1,486,262	3,005,036	139,398	2,584,860	7,915,045	7,355,205	7,939,032	6,452,948	8,881,881
Boston & Maine.....Nov.	1,959	2,316,101	575,103	3,386,056	436,607	521,532	70,240	1,544,063	2,727,649	658,407	179,374	694,315	312,792
Boston & Maine.....Nov.	1,960	30,060,132	6,859,181	42,948,686	5,626,034	6,742,459	736,721	16,698,875	31,765,757	7,883,868	5,717,226	3,870,990	7,192,893
Burlington, Rock Island.....Nov.	255	101,885	17,407	127,102	18,195	21,191	55,802	109,918	109,918	17,184	—7,131	340	—5,429
Burlington, Rock Island.....Nov.	255	997,351	179,131	1,265,704	193,516	183,030	4,741	561,355	1,087,369	112,615	—93,337	—252,281	—72,969
Cambria & Indiana.....Nov.	37	108,951	.....	109,048	7,511	41,831	389	12,142	67,044	—3,850	53,586	79,535	69,244
Cambria & Indiana.....Nov.	37	1,190,266	.....	1,191,449	83,878	47,201	4,331	123,052	733,813	83,994	841,667	1,024,446	1,024,446
Canadian Pacific Lines in Maine.....Nov.	233	1,809,634	162,887	2,114,844	40,446	30,261	9,634	64,107	149,908	113,142	—38,686	3,056	—33,798
Canadian Pacific Lines in Maine.....Nov.	233	1,809,634	162,887	2,114,844	380,742	468,755	105,788	778,783	1,806,586	214,185	—166,436	—166,436	—166,436
Canadian Pacific Lines in Vermont.....Nov.	85	50,430	7,411	70,157	11,166	19,489	4,282	54,282	92,718	—22,561	—44,988	—29,769	—44,988
Central of Georgia.....Nov.	1,926	942,043	113,492	1,055,535	158,104	238,813	57,402	578,103	1,130,742	—181,973	—409,338	—409,338	—409,338
Central of Georgia.....Nov.	1,926	12,349,410	1,371,247	15,382,318	2,117,270	3,290,590	609,045	6,377,751	13,293,393	2,088,925	862,082	1,045,721	1,594,671
Central of New Jersey.....Nov.	678	1,951,717	349,064	2,469,965	212,552	534,159	46,175	1,111,426	1,996,177	93,296	—82,881	106,029	35,642
Central of New Jersey.....Nov.	680	23,568,230	4,330,945	28,978,096	2,312,015	5,410,327	522,321	12,408,328	21,824,133	3,916,210	2,206,128	1,385,840	3,517,948
Central Vermont.....Nov.	455	375,211	32,716	447,022	59,325	105,558	16,591	231,958	433,367	—630	—37,644	9,657	—12,903
Central Vermont.....Nov.	455	4,888,150	428,584	5,807,583	812,965	1,089,162	169,531	2,685,019	5,001,636	581,702	173,636	—265,213	454,414
Chesapeake & Ohio.....Nov.	3,105	9,079,822	263,253	9,741,759	1,126,464	1,838,530	194,336	2,574,454	6,040,103	2,994,002	3,017,142	5,557,610	3,710,911
Chesapeake & Ohio.....Nov.	3,106	110,747,376	118,502,613	229,250,000	21,182,899	21,922,899	2,110,150	27,542,860	66,949,484	39,056,119	39,534,839	48,100,531	47,119,291
Chicago & Eastern Illinois.....Nov.	930	1,103,606	120,902	1,379,646	166,054	242,079	57,007	540,822	1,036,550	293,116	162,845	245,162	214,782
Chicago & Eastern Illinois.....Nov.	930	11,879,667	1,417,138	15,043,488	1,811,021	2,582,852	642,114	5,752,345	11,563,529	2,724,959	1,246,992	1,254,552	1,810,412
Chicago & Illinois Midland.....Nov.	131	291,525	1,155	301,843	48,580	36,962	17,869	92,780	213,379	88,464	56,236	121,364	71,870
Chicago & Illinois Midland.....Nov.	131	3,461,620	1,190	3,576,045	409,706	709,628	192,303	922,362	2,434,267	827,014	774,045	1,062,278	931,495
Chicago & North Western.....Nov.	8,389	5,505,420	863,620	7,093,549	919,611	1,682,499	185,225	3,072,932	6,178,343	915,206	166,663	1,125,724	591,702
Chicago & North Western.....Nov.	8,400	63,975,810	10,792,047	83,102,467	14,060,683	21,372,758	2,102,961	33,897,133	75,199,059	2,326,112	121,544	4,419,199	4,713,928
Chicago, Burlington & Quincy.....Nov.	8,969	6,913,957	808,867	8,582,488	949,799	1,309,733	228,857	3,073,095	5,841,722	1,958,153	1,392,722	1,585,538	1,796,313
Chicago, Burlington & Quincy.....Nov.	8,975	73,926,778	8,842,127	92,239,139	13,437,121	16,126,577	2,664,216	33,114,225	68,922,829	23,316,880	11,833,431	11,870,374	16,273,714
Chicago Great Western.....Nov.	1,505	1,354,909	40,377	1,502,495	160,079	1,313,106	60,556	622,415	1,048,725	347,002	128,741	256,723	173,624
Chicago Great Western.....Nov.	1,505	15,602,546	510,028	17,221,562	2,673,178	2,644,929	654,221	6,603,965	13,171,511	3,010,699	718,289	1,832,861	1,207,170
Chicago, Indianapolis & Louisville.....Nov.	575	663,774	54,046	786,632	95,937	223,267	29,725	332,615	721,376	21,061	—73,575	71,729	—37,023
Chicago, Indianapolis & Louisville.....Nov.	575	7,691,205	578,067	9,287,711	1,049,081	2,395,142	326,019	3,782,010	7,968,172	960,797	—83,380	364,881	3,227,249

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INCORPORATED, LIMA, OHIO

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1937—CONTINUED

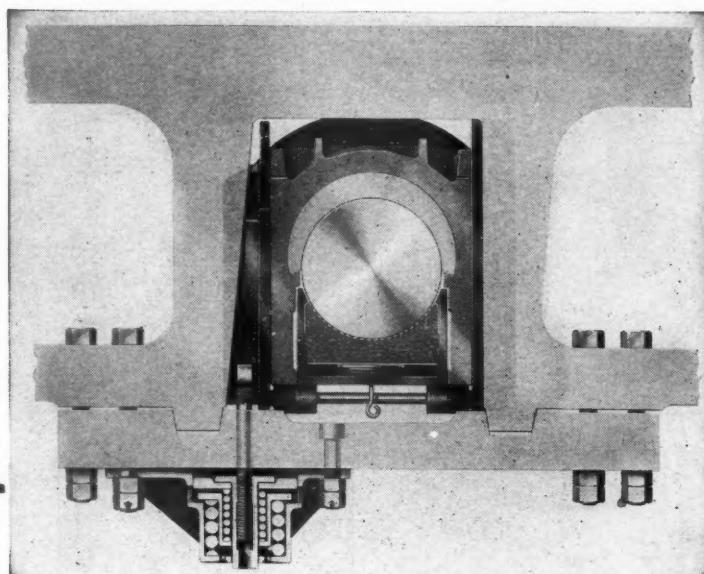
Name of road	Av. mileage operated during period	Operating revenues			Operating expenses			Operating ratio	Net from railway operation	Net railway operating income	
		Freight	Passenger	Total (inc. misc.)	Maintenance of way and structures	Equip-ment	Traffic			After depreciation 1937	Before depreciation
Chicago, Milwaukee, St. Paul & Pacific	Nov. 11,051	\$7,265,916	\$609,079	\$8,697,054	\$1,275,773	\$1,658,865	\$211,427	80.5	\$1,692,824	\$601,283	\$1,176,072
Nov. 11,103	82,060,513	7,437,591	99,305,594	19,041,483	1,911,483	2,474,513	36,428,877	80.7	19,198,520	8,407,498	7,979,254
Chicago, Rock Island & Pacific	Nov. 7,511	6,434,359	6,160,271	12,594,630	1,606,948	1,163,080	2,712,481	85.4	897,504	237,554	502,918
Nov. 7,519	58,168,258	6,993,572	71,020,756	13,988,181	1,581,180	2,523,986	29,065,368	84.6	10,940,722	3,631,315	1,364,431
Chicago, Rock Island & Gulf	Nov. 626	226,603	33,625	388,988	44,089	53,246	19,062	73.8	101,883	43,068	18,046
Nov. 626	2,910,511	352,615	4,377,483	596,605	430,854	205,126	1,530,492	69.8	1,321,291	41,291	271,264
Chicago, St. Paul, Minneap. & Omaha	Nov. 1,648	13,962,508	1,537,303	16,628,649	2,322,771	3,239,231	36,914	88.1	2,974,887	72,462	14,905
Nov. 1,648	13,962,508	1,537,303	1,537,303	16,628,649	2,322,771	3,239,231	36,914	88.1	2,974,887	72,462	14,905
Clinchfield Railroad	Nov. 308	532,058	4,207	541,931	35,082	120,114	112,447	55.8	239,781	245,146	278,770
Nov. 308	6,247,127	49,542	6,363,050	483,490	1,280,318	205,424	1,232,166	52.9	2,993,896	2,548,883	3,346,958
Colorado & Southern	Nov. 796	542,529	36,296	640,066	65,902	125,221	261,872	77.4	1,943,566	27,409	133,115
Nov. 841	6,150,665	420,426	7,196,308	776,441	1,397,470	155,684	2,800,141	76.1	1,721,248	736,682	507,657
Fort Worth & Denver City	Nov. 902	615,132	62,111	650,290	53,768	102,461	17,647	62.4	244,664	174,537	211,610
Nov. 902	6,331,953	619,529	6,785,018	586,689	1,009,801	200,864	2,060,423	62.5	2,546,232	1,747,729	1,038,693
Columbus & Greenville	Nov. 167	102,508	10,042	120,321	26,905	13,337	46,091	81.3	18,570	5,600	27,323
Nov. 167	1,036,287	95,098	1,203,329	289,069	164,817	47,495	435,296	87.6	149,063	10,690	107,744
Delaware & Hudson	Nov. 830	1,796,572	79,588	1,952,064	251,496	541,817	774,287	87.9	236,703	165,830	417,896
Nov. 830	21,229,604	23,316,265	3,154,260	5,412,176	497,175	8,486,576	19,121,034	82.0	4,195,231	2,861,805	2,748,914
Delaware, Lackawanna & Western	Nov. 985	2,929,258	570,933	3,960,045	258,753	780,083	11,257,91	82.0	712,692	2,876,992	824,490
Nov. 985	34,519,476	6,447,467	46,253,184	3,738,096	8,310,176	1,272,191	20,954,630	77.8	10,283,221	5,593,221	5,550,792
Denver & Rio Grande Western	Nov. 2,569	2,109,076	74,742	2,288,437	180,013	686,510	69,080	81.8	417,105	175,801	211,610
Nov. 2,569	22,153,607	1,486,838	24,569,107	4,081,635	7,206,652	682,270	9,245,656	90.3	2,415,593	470,937	1,457,138
Denver & Salt Lake	Nov. 232	258,376	6,997	276,424	37,351	66,269	2,202	64.2	98,946	67,420	132,448
Nov. 232	2,308,074	76,020	2,491,385	439,394	612,870	26,767	709,031	74.9	625,004	751,368	915,435
Detroit & Mackinac	Nov. 242	67,378	74,974	111,715	15,698	959	28,791	80.5	14,592	5,557	35,713
Nov. 242	737,313	34,947	844,696	135,114	173,347	10,546	289,081	76.5	198,848	166,419	184,401
Detroit & Toledo Shore Line	Nov. 50	312,673	20,761	23,136	8,591	83,338	143,742	46.0	168,931	83,877	133,424
Nov. 50	3,483,717	3,504,582	265,989	259,623	89,384	874,087	1,581,298	45.1	1,923,284	1,568,617	992,193
Detroit, Toledo & Ironton	Nov. 472	523,068	553,218	88,089	90,718	11,788	133,389	56.8	238,768	187,517	222,417
Nov. 472	6,608,635	3,030	6,921,397	527,209	940,588	127,747	1,536,476	52.8	3,267,730	2,665,286	2,419,426
Duluth, Missabe & Iron Range	Nov. 538	201,185	2,250	236,967	159,428	249,480	3,798	263.8	388,174	570,952	327,062
Nov. 538	23,082,819	26,287	26,566,887	2,055,204	2,859,293	43,629	4,262,288	36.3	16,913,707	13,502,045	9,320,617
Duluth, Winnipeg & Pacific	Nov. 178	88,902	1,208	92,752	24,194	19,606	47,674	104.9	4,508	8,255	9,631
Nov. 178	1,232,970	21,465	1,290,598	208,775	22,733	527,148	1,064,161	82.5	226,437	146,507	16,807
Elgin, Joliet & Eastern	Nov. 434	1,011,673	24	1,148,717	160,979	270,623	536,217	88.4	133,685	5,727	531,503
Nov. 434	17,890,385	179	20,432,527	1,799,113	4,227,093	160,471	7,395,059	68.7	6,389,915	5,148,525	3,613,674
Erie	Nov. 2,277	5,140,718	403,127	5,994,911	475,947	1,376,021	2,647,182	82.2	1,065,976	241,508	1,554,535
Nov. 2,277	67,312,021	4,863,145	78,219,429	6,679,347	15,338,400	1,923,503	29,082,076	71.7	22,142,526	13,568,794	15,067,669
New Jersey & New York	Nov. 45	13,257	43,384	57,368	4,950	14,256	48,623	121.3	82,201	32,532	28,102
Nov. 45	164,682	488,806	678,772	58,874	164,432	5,983	525,475	113.1	88,519	318,214	291,784
New York, Susq. & Western	Nov. 143	221,281	24,426	258,726	18,673	28,082	112,092	66.8	85,791	28,849	49,409
Nov. 143	2,568,543	269,406	2,969,507	254,423	321,960	43,484	1,243,732	67.0	338,086	338,086	397,378
Florida East Coast	Nov. 684	543,544	128,222	750,662	126,022	161,587	268,519	80.2	148,545	46,939	76,995
Nov. 684	5,051,277	2,515,564	8,454,522	1,128,949	1,644,619	245,021	6,479,859	76.6	1,974,663	645,701	594,192
Georgia Railroad	Nov. 329	245,045	14,246	284,089	62,225	50,356	137,222	99.4	1,839	—400	73,059
Nov. 329	2,960,707	167,882	3,420,103	443,080	650,627	210,274	1,446,546	85.0	514,127	426,728	633,127
Georgia & Florida	Nov. 407	80,550	2,320	86,732	19,062	16,832	37,289	98.8	1,033	—2,828	2,233
Nov. 407	1,135,819	28,788	1,208,956	266,775	208,641	95,414	435,608	88.5	138,475	42,484	11,902
Grand Trunk Western	Nov. 1,032	1,578,198	88,068	1,827,481	213,401	396,206	875,263	87.1	235,487	177,393	264,519
Nov. 1,032	19,843,526	989,481	22,523,019	2,706,214	4,218,979	433,333	9,216,498	77.6	5,047,633	3,958,414	2,316,256
Canadian Nat'l Lines in New Eng.	Nov. 172	92,565	5,760	107,580	27,492	18,582	67,498	111.6	—12,478	—22,339	—45,032
Nov. 172	1,150,260	80,710	1,344,389	343,689	231,270	27,473	709,784	104.5	—61,060	—200,019	—604,245
Great Northern	Nov. 8,070	5,793,402	327,033	6,602,805	636,266	887,952	2,408,684	66.1	2,235,300	1,534,154	1,850,462
Nov. 8,089	77,371,194	4,594,696	89,621,243	9,757,920	13,942,013	2,093,380	28,349,963	63.7	23,574,396	23,412,020	22,298,056

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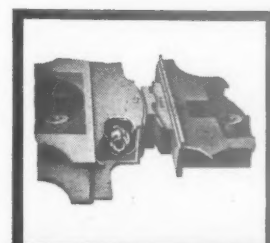


UNIFORM ADJUSTMENT

...that stays adjusted



The Franklin Automatic Compensator and Snubber takes entire charge of the driving box wedge job. » » » The adjustment of every driving box on the engine is the same. » » » Regardless of wear; expansion due to temperature change; or unusual service conditions, this predetermined adjustment is constantly maintained. » » » Wear and expansion are compensated for by the compensator member. For unusual shocks a yielding, cushioned resistance is provided by the snubber. This avoids any air gap or slack, eliminates all possibility of pounding or stuck boxes and avoids excessive stresses on frame, bearings or rods. » » » It assures lower locomotive maintenance, freedom of vertical movement of the box and an easier riding locomotive. » » » Its twin, the Type E-2 Radial Buffer, takes the job of maintaining correct relationship between engine and tender and further improves the riding of the locomotive.



Franklin Type E-2 Radial Buffer dampens oscillation between engine and tender and makes for easier riding.



Franklin parts fit—in applying them there is no labor cost for fitting. They are built to original dimensions of carefully selected materials—they avoid road failures and excessive maintenance.

FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK

CHICAGO

MONTREAL

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1937—CONTINUED

Name of road	Av. mileage operated during period	Operating revenues			Operating expenses			Operating ratio	Net from railway operation	Net railway operating income	
		Freight	Passenger (inc. misc.)	Total	Maintenance of way and structures	Equipment	Traffic			Operating income	After depreciation 1937
Green Bay & Western.....Nov.	234	\$131,341	\$479	\$136,629	\$21,007	\$13,728	\$6,247	74.4	\$34,847	\$28,250	\$24,117
11 mos.....Nov.	234	1,507,899	7,028	1,572,186	317,045	179,658	327,304	72.9	425,180	336,532	254,631
Gulf & Ship Island.....Nov.	239	85,346	105,560	1,446,564	18,143	15,213	61,335	98.3	1,773	18,177	28,623
11 mos.....Nov.	239	1,182,379	1,446,564	1,446,564	227,301	197,429	32,894	83.2	242,993	66,154	-46,235
Gulf, Mobile & Northern.....Nov.	936	520,447	25,652	571,269	119,240	110,235	39,587	84.96	85,915	48,252	-11,646
11 mos.....Nov.	936	6,504,123	303,964	6,965,555	1,222,227	1,005,920	427,671	66.53	2,331,819	1,793,819	1,126,286
Illinois Central.....Nov.	4,951	7,328,203	785,298	7,861,020	635,291	1,395,495	174,000	72.7	1,338,590	1,528,102	1,338,706
11 mos.....Nov.	4,951	73,282,203	8,891,034	89,393,171	8,717,904	18,513,016	2,218,333	76.7	20,788,021	14,872,430	12,690,567
Yazoo & Mississippi Valley.....Nov.	1,619	1,377,929	98,546	1,556,801	108,234	150,596	28,339	57.2	666,980	570,540	477,658
11 mos.....Nov.	1,619	13,148,876	952,062	15,065,255	1,906,700	2,176,004	359,503	65.7	5,167,797	3,787,289	2,909,288
Illinois Central System.....Nov.	6,570	7,832,054	883,844	9,417,821	7,733,535	1,546,091	202,341	70.2	2,810,570	2,004,717	1,826,364
11 mos.....Nov.	6,577	86,431,079	9,843,096	104,438,426	9,914,604	20,689,020	2,577,836	75.2	25,953,818	18,638,148	15,705,605
Illinois Terminal.....Nov.	504	369,200	68,796	477,671	62,050	73,595	16,817	72.09	133,338	78,886	50,920
11 mos.....Nov.	504	4,452,525	781,615	5,705,637	612,397	804,614	178,752	64.02	2,052,777	1,612,249	1,323,703
Kansas City Southern.....Nov.	878	1,028,186	16,021	1,155,204	117,836	178,290	49,323	65.9	393,899	318,899	265,054
11 mos.....Nov.	878	11,684,655	219,264	13,129,347	1,314,935	1,905,111	546,244	63.3	4,823,038	3,780,038	3,152,109
Kansas, Oklahoma & Gulf.....Nov.	326	218,961	597	199,574	21,764	19,956	8,829	50.5	98,856	76,286	57,339
11 mos.....Nov.	326	2,182,934	6,292	2,222,635	270,697	173,197	97,537	46.6	1,186,548	976,674	765,683
Lake Superior & Ishpeming.....Nov.	156	88,490	1,118	100,981	32,271	27,743	816	95.2	4,808	-15,799	-15,326
11 mos.....Nov.	156	2,752,653	1,344	3,230,667	344,608	284,866	8,452	38.3	1,994,295	1,471,769	1,471,769
Lehigh & Hudson River.....Nov.	96	137,311	73	138,287	19,410	23,757	3,922	74.1	35,761	23,903	10,570
11 mos.....Nov.	96	1,521,228	3,122	1,532,880	185,707	229,331	43,400	68.9	476,594	333,417	199,218
Lehigh & New England.....Nov.	215	291,908	.....	293,413	32,156	73,329	6,600	81.6	53,977	39,129	44,434
11 mos.....Nov.	215	3,375,767	1,591	3,402,846	338,523	765,652	17,868	76.1	811,654	633,633	707,535
Lehigh Valley.....Nov.	1,309	3,300,159	192,983	3,722,788	269,662	678,689	106,932	78.7	792,232	515,959	271,421
11 mos.....Nov.	1,319	39,634,592	2,380,981	44,837,668	2,978,431	8,965,526	1,241,725	76.2	10,676,291	7,531,586	5,313,299
Louisiana & Arkansas.....Nov.	606	515,046	11,483	545,522	72,516	81,722	34,953	67.5	177,516	133,028	98,371
11 mos.....Nov.	606	5,184,610	108,076	5,487,665	723,903	797,310	360,620	67.1	1,803,381	1,407,036	1,132,649
Louisiana, Arkansas & Texas.....Nov.	240	98,605	167	103,783	28,044	12,892	5,100	84.0	16,555	12,073	-8,220
11 mos.....Nov.	253	1,162,549	2,490	1,210,681	252,249	124,382	46,578	77.1	279,352	230,929	51,225
Louisville & Nashville.....Nov.	4,940	6,266,749	551,979	7,272,401	732,930	1,850,046	192,076	77.8	1,614,651	975,935	1,017,751
11 mos.....Nov.	4,941	71,230,169	6,490,364	83,319,018	8,970,818	18,989,210	2,004,879	74.9	20,902,022	13,681,067	14,911,311
Maine Central.....Nov.	1,009	725,974	69,952	877,878	71,337	205,946	13,442	78.4	189,746	123,004	99,130
11 mos.....Nov.	1,009	9,585,084	971,273	11,514,570	1,772,600	1,987,617	4,029,566	72.5	3,163,979	2,404,901	1,897,131
Midland Valley.....Nov.	351	122,520	1	124,878	12,459	14,498	2,531	56.7	54,118	43,388	33,098
11 mos.....Nov.	351	1,385,753	170	1,412,706	188,832	134,343	27,554	54.5	642,743	550,895	451,496
Minneapolis & St. Louis.....Nov.	1,530	744,674	9,457	791,543	112,546	102,448	43,808	73.7	208,314	167,012	124,616
11 mos.....Nov.	1,530	7,422,882	123,389	7,938,747	1,201,359	1,288,560	460,225	82.8	1,368,160	1,068,067	436,009
Minneapolis, St. Paul & S. Marie.....Nov.	4,300	1,681,130	78,265	1,922,534	266,988	368,829	59,434	91.0	174,561	-144,170	-104,396
11 mos.....Nov.	4,301	22,581,652	1,195,555	25,851,891	3,570,847	4,442,460	667,277	78.7	5,501,808	4,131,109	2,510,061
Duluth, South Shore & Atlantic.....Nov.	549	144,424	12,502	175,676	32,477	42,333	4,307	97.4	4,532	-8,210	-13,029
11 mos.....Nov.	549	2,283,992	166,650	2,690,389	410,170	465,921	49,491	74.5	686,876	582,747	470,523
Spokane International.....Nov.	163	54,554	1,322	61,428	9,157	8,623	2,210	77.2	13,839	4,290	13,901
11 mos.....Nov.	163	703,906	15,558	787,032	159,541	84,572	23,864	74.2	202,727	160,152	112,178
Mississippi Central.....Nov.	150	72,618	2,341	77,447	21,894	10,018	7,785	88.4	9,015	4,324	-2,704
11 mos.....Nov.	150	810,996	29,184	866,570	217,105	126,050	78,830	84.0	138,771	98,448	36,596
Missouri-Arkansas.....Nov.	364	88,615	14,086	1,07,665	19,846	12,675	5,658	79.0	20,257	19,533	18,544
11 mos.....Nov.	364	978,422	14,086	1,07,665	261,712	126,729	36,615	82.4	185,949	159,349	42,607
Missouri-Illinois.....Nov.	193	103,446	471	105,789	14,830	13,847	37,194	69.6	32,112	22,767	8,948
11 mos.....Nov.	193	1,360,213	7,279	1,389,424	268,822	160,811	30,334	68.1	442,733	376,763	204,810
Missouri-Kansas-Texas Lines.....Nov.	3,293	2,124,148	193,333	2,550,426	327,294	428,466	122,415	80.0	510,295	248,128	27,032
11 mos.....Nov.	3,293	24,866,004	2,165,739	29,729,071	3,812,711	4,828,970	1,357,179	75.0	7,425,875	5,243,745	2,779,808
Missouri Pacific.....Nov.	7,174	6,444,882	468,624	7,509,046	1,104,729	1,453,503	215,768	79.3	1,553,808	1,136,903	665,698
11 mos.....Nov.	7,171	73,431,354	5,203,751	85,528,456	12,095,351	16,265,932	2,720,430	76.6	20,008,708	16,162,973	10,815,969

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NO. 49 OF A SERIES OF FAMOUS ARCHES OF THE WORLD



Photo by Cox, Greenville, S. C.



POINSETT ARCH BRIDGE

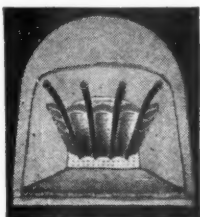
SOUTH CAROLINA 1820

One of the most interesting of the early bridges in this country is the Poinsett Bridge located at Callahan Mountain, 25 miles from Greenville, South Carolina. This stone arch bridge was constructed under the supervision of Joel Roberts Poinsett in 1820 at which time he was Chairman of the South Carolina Board of Public Works. It is a part of the Saluda Mountain Road and but one of a number of internal improvements which he initiated in his native state. The bridge is 125 feet in length and about 30 feet in height. Parapets on either side rise up some 6 feet. It is in active use today, accommodates one vehicle at a time and the stone work is as sound today as when it was first built.

Joel Roberts Poinsett, was a noted diplomat, statesman and engineer. Widely traveled and a keen student of politics throughout the world, he served successively in the State Legislature, the Federal House of Representatives, was the first American Minister to Mexico, and was Secretary of War under President Van Buren. In 1841 he retired to his South Carolina plantation. The wide variety of his interests is indicated to some degree by his contribution to the National Institute for the Promotion of Science and Useful Arts; his gifts of manuscripts to the American Philosophical Society and the Pennsylvania Historical Society; and the beautiful Poinsettia, which he brought into this country and developed from a Mexican plant.

**HARBISON-WALKER
REFRACTORIES CO.**

Refractory Specialists



**AMERICAN ARCH CO.
INCORPORATED**

60 EAST 42nd STREET, NEW YORK, N. Y.

*Locomotive Combustion
Specialists*

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1937—CONTINUED

Name of road	Av. mileage operated during period	Operating revenues			Operating expenses			Operating ratio	Net from railway operation	Net railway operating income					
		Freight	Passenger	Total (inc. misc.)	Maintenance of way and structures	Equipment	Traffic			Trans- portation	Total	Operating income	After depreciation— 1937	Before de- preciation	
Gulf Coast Lines	Nov. 1,767	\$1,089,716	\$44,827	\$1,201,549	\$197,042	\$199,830	\$47,756	\$445,801	\$937,962	78.06	\$263,587	\$198,767	\$80,621	\$107,267	\$113,779
	11 mos. 1,763	13,314,355	509,545	14,538,865	2,078,876	2,215,815	518,672	4,389,765	9,757,734	67.11	4,781,131	2,816,698	833,895	3,180,495	3,180,495
Intrnational Great Northern	Nov. 1,154	816,431	81,261	1,012,746	151,181	196,927	33,623	484,308	90,999	90.99	91,271	34,900	11,128	13,366	41,774
	11 mos. 1,154	9,767,827	1,019,408	12,075,462	1,734,075	2,224,380	351,827	5,148,988	10,106,984	83.70	1,968,478	1,535,050	307,448	140,227	634,127
Mobile & Ohio.	Nov. 1,194	861,063	29,085	932,431	145,307	231,140	43,797	364,276	830,680	89.1	101,751	45,059	25,061	196,399	25,162
	11 mos. 1,196	10,181,638	378,885	11,178,765	1,455,762	2,399,203	476,929	4,036,639	8,885,890	79.5	2,292,875	1,659,553	934,406	1,097,775	1,487,521
Monongahela	Nov. 1,171	337,570	720	340,751	31,383	32,226	466	90,948	159,353	46.8	181,398	68,535	149,110	146,898	74,026
	11 mos. 1,171	4,130,821	9,808	4,174,623	442,225	334,475	5,262	934,656	1,756,055	42.1	2,418,568	2,051,288	1,118,250	1,314,199	1,178,858
Montour	Nov. 56	158,811	.....	160,308	11,611	54,629	923	470,789	128,209	80.0	32,099	12,080	52,526	80,159	66,581
	11 mos. 56	2,318,695	135	2,333,436	155,928	495,530	11,144	567,859	1,322,171	56.7	1,011,265	703,376	1,000,620	896,452	1,146,030
Nashville, Chattanooga & St. Louis	Nov. 1,117	881,347	89,004	1,067,436	158,631	290,138	68,610	485,994	1,059,640	97.4	27,786	44,746	39,838	163,128	19,858
	11 mos. 1,118	10,806,364	1,083,496	13,288,937	1,685,489	3,203,802	700,709	5,240,713	11,497,817	86.5	1,791,120	968,587	913,822	1,219,700	1,385,586
Nevada Northern	Nov. 165	59,164	1,388	66,108	10,615	4,166	1,066	10,855	31,476	47.6	34,632	25,826	28,641	15,274	34,684
	11 mos. 165	568,301	14,512	639,374	101,122	42,520	11,296	117,764	322,566	50.4	316,808	216,803	240,340	152,823	305,949
New York Central.	Nov. 11,078	20,215,897	5,241,748	28,678,023	3,176,367	6,643,887	539,413	11,652,660	23,354,443	81.4	5,323,580	2,563,982	1,826,677	5,027,105	3,187,349
	11 mos. 11,159	240,006,778	60,025,874	338,918,218	37,529,380	72,577,808	6,232,914	127,699,140	259,723,981	76.6	79,194,237	50,053,007	37,005,245	43,498,688	51,755,900
Pittsburgh & Lake Erie.	Nov. 233	1,408,335	51,990	1,507,096	200,035	586,369	27,398	549,015	1,450,873	96.3	56,223	44,025	161,269	516,185	356,288
	11 mos. 233	20,667,406	626,575	21,980,585	2,067,882	7,632,866	307,127	6,844,468	17,816,991	81.1	4,163,594	2,299,332	4,311,062	4,911,044	6,135,120
New York, Chicago & St. Louis.	Nov. 1,704	2,834,931	66,205	3,016,276	323,929	497,203	118,575	1,237,391	2,299,069	76.2	717,207	599,104	368,275	749,688	510,860
	11 mos. 1,704	36,622,430	878,539	38,823,502	4,230,849	6,024,614	1,306,782	13,257,518	26,213,331	67.5	12,610,171	10,416,468	7,499,137	8,161,921	8,991,399
New York, New Haven & Hartford.	Nov. 2,028	3,227,388	2,266,774	6,197,232	804,979	1,292,553	103,720	2,520,871	5,107,276	82.4	1,089,956	609,956	36,127	1,272,728	315,231
	11 mos. 2,033	42,226,056	24,492,961	74,992,929	10,055,453	13,895,236	1,291,258	28,950,798	58,713,667	78.3	16,279,262	4,379,774	6,839,531	7,471,811	7,471,811
New York Connecting.	Nov. 20	155,919	.....	166,164	15,461	7,273	.....	30,597	54,441	32.8	111,723	72,678	50,132	142,117	50,132
	11 mos. 20	2,190,015	.....	2,323,187	172,322	85,775	.....	317,676	588,946	25.4	1,734,241	1,318,216	1,076,758	1,289,014	1,076,758
New York, Ontario & Western.	Nov. 576	432,624	4,189	482,956	73,563	125,926	12,033	247,289	482,079	99.8	877	28,580	48,864	24,230	26,236
	11 mos. 576	4,961,503	496,004	6,017,199	680,233	1,386,274	126,575	2,918,980	5,357,936	89.0	659,263	219,300	157,938	986,637	99,466
Norfolk & Western.	Nov. 2,202	6,937,440	166,914	7,316,632	683,725	1,370,590	146,665	1,887,781	4,279,388	58.5	3,037,244	2,254,011	2,716,507	3,951,898	3,130,727
	11 mos. 2,202	83,887,301	2,057,598	88,463,684	9,267,368	16,260,375	1,493,449	19,924,555	49,328,377	55.8	39,135,307	26,575,633	30,282,086	31,295,815	34,703,617
Norfolk Southern	Nov. 830	347,935	6,823	371,170	85,919	52,902	23,994	148,056	324,869	87.5	46,301	13,343	10,620	20,297	488
	11 mos. 833	4,282,786	86,321	4,551,380	875,124	597,475	259,170	1,651,620	3,576,233	78.6	975,147	606,300	359,512	238,981	481,162
Northern Pacific	Nov. 6,721	4,406,834	281,856	5,097,677	492,545	1,584,920	158,519	1,986,089	4,039,133	79.2	1,058,544	482,770	750,894	1,619,174	1,031,683
	11 mos. 6,725	51,318,817	4,146,383	60,577,602	6,956,429	13,367,441	1,854,321	22,528,453	48,253,660	79.7	12,323,942	7,029,162	10,416,955	9,408,628	13,400,516
Northwestern Pacific	Nov. 351	174,544	58,018	257,500	44,667	46,597	4,452	169,104	276,358	107.3	18,858	36,753	44,339	10,665	30,920
	11 mos. 351	2,500,319	733,957	3,529,278	611,901	597,777	47,427	1,886,056	3,284,555	93.1	244,723	57,123	53,868	276,199	94,327
Oklahoma City-Ada-Atoka	Nov. 132	33,747	421	36,186	4,476	2,920	776	11,346	12,921	35.7	23,265	19,845	13,174	7,157	13,181
	11 mos. 132	446,656	5,021	477,178	106,549	27,844	8,805	126,363	290,789	60.9	186,389	155,630	81,144	104,322	81,224
Pennsylvania	Nov. 10,308	23,586,830	5,652,496	32,552,166	3,479,855	7,083,620	654,167	12,884,586	25,438,510	78.1	7,113,656	4,014,705	3,609,551	7,354,767	5,586,310
	11 mos. 10,308	321,081,531	65,308,099	425,798,394	45,691,597	92,153,921	7,470,504	150,881,261	314,046,214	73.8	111,752,180	73,947,360	68,937,659	75,382,651	91,835,359
Long Island	Nov. 396	477,943	1,201,768	1,770,472	200,594	375,503	9,208	948,605	1,568,339	88.6	202,133	2,026	157,006	52,128	60,096
	11 mos. 396	5,864,209	15,830,152	22,787,994	2,421,764	4,438,320	162,672	10,734,138	18,312,540	80.4	4,475,454	1,518,911	2,655,785	855,540	804,818
Pennsylvania-Reading Seashore Lines.	Nov. 411	253,794	376,851	705,933	70,593	56,320	6,647	262,355	413,054	109.6	36,203	100,484	170,860	146,418	154,770
	11 mos. 412	2,830,879	2,870,914	5,701,793	871,762	914,402	123,954	3,294,284	5,453,583	91.3	520,443	436,605	1,085,564	1,355,021	1,355,021
Pere Marquette	Nov. 2,115	2,354,636	66,960	2,557,555	376,225	598,880	57,378	982,200	2,114,159	82.7	443,396	309,094	229,932	632,301	447,229
	11 mos. 2,115	27,054,283	970,409	29,332,889	3,932,331	6,338,716	732,732	10,769,675	22,875,268	76.7	6,957,621	5,407,605	4,376,093	4,892,727	6,725,011
Pittsburgh & Shawmut.	Nov. 100	59,654	283	60,700	10,484	22,447	1,573	19,997	58,961	97.1	1,739	300	10,223	6,689	595
	11 mos. 100	522,623	3,221	603,285	155,240	185,711	15,536	193,227	596,470	98.8	6,815	4,636	21,319	4,488	75,532
Pittsburgh & West Virginia.	Nov. 138	235,637	.....	235,637	59,548	77,286	14,866	69,987	242,318	96.8	8,124	9,919	48,455	98,058	73,240
	11 mos. 138	3,660,128	6,440	3,842,534	737,928	928,134	200,855	826,047	2,943,751	76.6	898,783	674,839	1,067,770	1,159,139	1,322,233
Pittsburgh, Shawmut & Northern.	Nov. 190	91,287	114	92,266	18,423	19,393	1,370	32,261	77,754	84.3	14,512	9,401	2,296	13,674	4,124
	11 mos. 190	929,349	423	936,949	191,676	214,015	15,241	343,413	834,897	89.1	102,052	46,742	30,062	49,981	9,760
Reading	Nov. 1,452	3,993,242	272,510	4,468,081	416,667	1,014,841	76,634	1,881,456	3,545,799	79.4	922,282	743,389	829,662	1,210,692	1,086,325
	11 mos. 1,452	48,759,130	3,205,208	54,508,120	4,321,896	10,055,609	812,451	20,976,691	38,217,560	70.1	16,290,560	12,258,950	12,886,767	12,774,872	15,723,545
Richmond, Fredericksburg & Potomac.	Nov. 117	328,658	165,202	611,721	65,796	137,161	8,615	248,983	497,557	81.3	114,164	72,526	47,535	105,088	74,637
	11 mos. 117	4,084,935	2,306,965	7,830,604	836,884	1,482,853	102,976	2,916,968	5,835,605	74.5	1,994,999	1,410,201	961,691	695,019	1,254,582

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REVENUES AND EXPENSES OF RAILWAYS

MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1937—CONTINUED

Name of road	Av. mileage operated during period	Operating revenues			Operating expenses			Operating ratio	Net from operation	Net railway operating income	
		Freight	Passenger	Total	Maintenance of way and structures	Traffic	Trans- portation			Operating income	After depreciation—1937
Rutland	Nov. 407	\$164,000	\$27,595	\$191,595	\$22,305	\$10,785	\$144,810	102.9	\$7,448	\$31,803	\$29,152
St. Louis-San Francisco	11 mos. 407	2,178,214	361,305	2,539,519	455,429	118,999	1,585,761	92.4	245,407	17,596	21,782
St. Louis-San Francisco	Nov. 4,885	3,021,481	287,882	3,309,363	596,240	117,539	1,585,761	93.4	237,974	17,596	21,782
St. Louis-San Francisco	11 mos. 4,913	3,824,708	3,454,168	7,278,876	6,802,896	1,246,872	17,485,520	83.1	7,690,186	4,787,404	5,181,246
St. Louis, San Francisco & Texas	Nov. 261	123,488	583	124,071	33,723	7,172	61,820	95.3	6,039	1,038	31,962
St. Louis, San Francisco & Texas	11 mos. 261	1,377,570	6,355	1,383,925	309,461	82,884	1,246,974	82.2	198,924	198,924	—37,704
St. Louis Southwestern Lines	Nov. 1,706	1,565,572	30,122	1,595,694	275,111	83,441	621,057	76.4	395,498	287,473	124,270
St. Louis Southwestern Lines	11 mos. 1,731	18,390,965	321,183	18,712,148	3,233,358	867,016	6,399,405	75.0	4,880,604	3,964,516	2,076,538
Seaboard Air Line	Nov. 4,307	2,839,393	365,482	3,204,875	540,803	172,717	1,359,066	86.4	475,633	195,633	88,831
Seaboard Air Line	11 mos. 4,307	30,040,881	4,961,576	35,002,457	7,859,184	1,763,698	14,405,421	81.3	7,273,481	4,998,481	2,632,509
Southern Railway	Nov. 6,639	6,057,923	773,510	6,831,433	1,033,717	132,659	2,907,286	82.1	1,342,684	736,504	351,651
Southern Railway	11 mos. 6,639	73,979,727	9,436,771	83,416,498	17,908,414	1,645,938	31,888,571	72.7	24,901,049	18,250,136	14,191,698
Alabama Great Southern	Nov. 315	472,343	58,174	530,517	83,607	14,276	202,476	84.8	86,706	34,787	69,359
Alabama Great Southern	11 mos. 315	5,735,517	660,371	6,395,888	1,535,551	139,184	2,113,011	73.0	1,852,281	1,249,476	1,130,695
Cinn., New Orleans & Texas Pacific	Nov. 336	1,075,652	88,447	1,164,099	154,694	26,659	330,001	72.0	307,716	302,251	332,884
Cinn., New Orleans & Texas Pacific	11 mos. 336	13,603,307	1,212,550	14,815,857	1,897,931	295,206	3,921,725	61.5	6,078,872	4,700,203	4,499,859
Georgia Southern & Florida	Nov. 397	119,835	32,165	151,999	35,124	1,621	70,870	92.3	13,034	4,890	—6,305
Georgia Southern & Florida	11 mos. 397	1,470,428	481,948	1,952,376	377,798	20,085	869,472	82.0	397,466	213,354	173,067
New Orleans & Northeastern	Nov. 204	232,455	21,631	254,086	39,860	9,413	89,626	69.8	82,179	66,437	38,623
New Orleans & Northeastern	11 mos. 204	2,607,316	243,647	2,850,963	392,450	63,265	907,467	61.9	1,158,504	755,960	534,831
Northern Alabama	Nov. 100	55,880	1,357	57,237	1,459	1,411	18,837	56.5	25,560	21,703	9,384
Northern Alabama	11 mos. 100	698,112	19,548	717,660	16,449	14,670	225,632	56.3	322,373	255,884	110,649
Southern Pacific	Nov. 8,762	10,028,230	1,738,808	11,767,038	2,435,421	359,466	5,571,136	83.0	2,183,683	1,121,123	473,161
Southern Pacific	11 mos. 8,767	123,599,056	21,282,413	144,881,469	27,289,318	3,801,862	64,122,645	76.2	37,668,210	25,230,319	17,139,204
Southern Pacific Steamship Lines	Nov.	584,023	17,975	601,998	15,303	18,209	492,886	104.9	—30,564	—45,846	—46,098
Southern Pacific Steamship Lines	11 mos.	6,485,769	281,545	6,767,314	1,110,378	195,692	5,656,936	97.7	164,241	61,843	—80,091
Texas & New Orleans	Nov. 4,420	3,267,658	287,811	3,555,469	688,572	135,648	1,456,012	77.7	865,508	1,744,141	408,910
Texas & New Orleans	11 mos. 4,423	36,309,234	3,357,919	39,667,153	7,648,421	1,396,320	15,064,633	76.7	10,014,158	6,923,372	4,449,181
Spokane, Portland & Seattle	Nov. 946	522,230	33,158	555,388	99,723	9,870	249,498	77.1	137,373	81,358	34,643
Spokane, Portland & Seattle	11 mos. 946	7,159,316	523,120	7,682,436	1,094,390	106,935	5,562,042	67.4	2,695,132	1,485,315	1,254,800
Tennessee Central	Nov. 286	1,800,339	4,086	1,804,425	30,216	6,816	73,615	77.8	43,197	30,213	13,786
Tennessee Central	11 mos. 286	2,146,399	56,518	2,202,917	391,793	69,041	807,389	74.0	604,550	498,499	304,962
Texas & Pacific	Nov. 1,936	2,093,013	212,688	2,305,701	321,155	76,584	817,485	72.8	677,964	480,463	330,484
Texas & Pacific	11 mos. 1,944	23,192,518	2,554,317	25,746,835	3,051,710	881,300	8,554,698	68.4	8,835,022	6,726,265	5,255,365
Texas Mexican	Nov. 162	101,383	589	101,972	22,050	3,521	43,268	75.7	28,755	21,965	14,398
Texas Mexican	11 mos. 162	1,214,692	5,736	1,220,428	207,111	38,819	457,100	71.6	390,248	337,230	248,770
Toledo, Peoria & Western	Nov. 239	224,736	3	224,739	37,981	17,497	53,640	61.4	88,033	60,065	39,397
Toledo, Peoria & Western	11 mos. 239	2,206,624	13	2,206,637	522,404	193,770	536,007	69.0	693,074	478,576	291,125
Union Pacific System	Nov. 9,910	11,375,052	1,103,931	12,478,983	873,692	394,775	4,499,459	64.0	4,874,917	4,007,769	3,067,312
Union Pacific System	11 mos. 9,913	121,376,785	15,820,890	137,197,675	16,970,837	4,232,232	50,119,795	72.0	41,563,086	28,883,943	20,570,438
Utah	Nov. 111	113,386	7,245	120,631	7,245	475	29,828	68.7	35,625	24,772	22,228
Utah	11 mos. 111	1,200,076	1,121,756	2,321,832	366,820	4,799	289,524	79.0	236,104	131,032	118,374
Virginian	Nov. 618	1,700,715	5,083	1,705,798	332,702	22,010	779,869	43.4	1,000,928	775,828	869,938
Virginian	11 mos. 618	17,586,230	43,452	17,629,682	3,521,698	235,613	8,319,795	43.4	9,993,903	7,711,903	8,617,473
Wabash	Nov. 2,433	3,144,917	208,470	3,353,387	561,113	154,356	1,513,397	78.6	774,241	571,650	248,122
Wabash	11 mos. 2,437	37,331,379	2,411,137	39,742,516	7,875,640	1,693,123	16,296,856	77.8	9,462,930	7,174,018	3,839,394
Ann Arbor	Nov. 293	287,720	9,579	297,299	58,961	12,427	147,300	84.9	46,088	27,148	17,057
Ann Arbor	11 mos. 293	3,466,089	45,690	3,511,779	846,109	137,934	1,560,509	82.3	645,630	436,596	284,273
Western Maryland	Nov. 879	1,254,832	6,085	1,260,917	127,387	37,940	348,429	67.0	430,064	355,064	359,039
Western Maryland	11 mos. 880	15,803,402	89,433	15,892,835	3,395,243	438,853	4,405,094	65.6	5,616,560	4,386,560	4,275,002
Western Pacific	Nov. 1,207	1,320,987	19,158	1,340,145	272,210	57,839	586,059	95.0	67,687	—18,429	—106,656
Western Pacific	11 mos. 1,207	14,525,239	417,305	15,331,843	3,469,965	640,126	6,165,389	93.1	1,054,259	357,037	—595,686
Wheeling & Lake Erie	Nov. 512	1,048,093	2,108	1,050,201	155,265	41,069	405,273	81.5	202,875	82,053	161,812
Wheeling & Lake Erie	11 mos. 512	14,307,109	21,754	14,328,863	3,092,794	378,761	4,703,613	68.5	4,754,405	3,125,408	4,244,433
Western Maryland	Nov. 879	1,254,832	6,085	1,260,917	127,387	37,940	348,429	67.0	430,064	355,064	359,039
Western Maryland	11 mos. 880	15,803,402	89,433	15,892,835	3,395,243	438,853	4,405,094	65.6	5,616,560	4,386,560	4,275,002
Western Pacific	Nov. 1,207	1,320,987	19,158	1,340,145	272,210	57,839	586,059	95.0	67,687	—18,429	—106,656
Western Pacific	11 mos. 1,207	14,525,239	417,305	15,331,843	3,469,965	640,126	6,165,389	93.1	1,054,259	357,037	—595,686
Wheeling & Lake Erie	Nov. 512	1,048,093	2,108	1,050,201	155,265	41,069	405,273	81.5	202,875	82,053	161,812
Wheeling & Lake Erie	11 mos. 512	14,307,109	21,754	14,328,863	3,092,794	378,761	4,703,613	68.5	4,754,405	3,125,408	4,244,433